

Visit our award-winning site: [canadacomputes.com](http://canadacomputes.com)

FREE

# The Computer PAPER

Canada's Computer Information Source

JANUARY 1997 \$3.99/US \$4.99

**Computing's  
Future  
Technologies  
to watch**

**Test Lab:  
Digital Cameras**



DELL4me

POWER, PERFORMANCE,  
PROCESSORS)

Secure on ultimate in power and performance with the NEW DIMENSION R1100 desktop. It's got a rock-solid Pentium 4 Processor. Intel's fastest processor ever. These fully featured systems come with a 400MHz bus, dual channel RDIMM and ATA 100 Hard Drives. They're network/broadband ready, and have the power to handle demanding applications and multitasking. Invest in value.



THE NEW  
DIMENSION™ 8100  
DESKTOP WITH  
INTEL® PENTIUM® 4  
PROCESSOR.

SEIZE POWER TODAY.

**ALL INTERNET, ALL THE TIME.** Get one year of AOL Canada membership with the purchase of any Dimension dealing or laptop notebook for home use.\* Here's what you'll get: unlimited internet access, e-mail with up to 7 unique e-mail addresses, instant messaging and Buddy List features to help you keep in touch with friends and family, parental controls to help safeguard your kids, online access and free 24-hour AOL customer service by phone or online. Value of \$225.



Downsized 1100 docking with 12" corner and  
After January 1st Certified 800-855 Speakers with Subwoofers  
Speakers shown in an example on 60000 system

\*INCLUDES WINDOWS MILLENNIUM EDITION - THE HOME VERSION OF THE WORLD'S FAVOURITE SOFTWARE

DAVIDSON 8700 TADON  
www.davidson.com

**Intel® Pentium® 4 Processor at 3.0 GHz**  
 Intel® Extreme Edition, 800MHz Ultra ATA-100  
 100 MB/s IDE Controller (133/100 MHz)  
 2GB 400MHz DDR2 SDRAM Controller  
 4GB DDR2 SDRAM  
 160 GB SATA (Serial ATA) Hard Drive  
 Integrated Intel® 945GM Express Graphics  
 64MB Video Memory  
 2 Year Limited Warranty  
 Intel® Pentium® 4 Processor at 3.0 GHz

**\$2999\*** \$200/month  
48 mos. financing  
10% credit line  
on this price

NEW MEMBER MEDIA Defined2 (also 5/5 with 300 Support)	Ask \$400
NEW COUNTRIES COME	Ask \$100
DIFFITTS PG Tracker® Monitor (100K x 14")	Ask \$400

[illegible][illegible]

**\$3999\*** \*MSRP. Excludes tax, license, and optional equipment.

BOSS Ultra 164-103	Auto \$137
2x/1x 3.5mm GIG-1/10M Cat6a/6	
Ultra GFI with EN Support	Auto \$440
Adm. Access ENE Certified	
AAA-RS232C Terminal with Submodule	Auto \$120

**DIMENSION 5100 1400**  
Ultimate Challenge Towel

[illegible]

**\$4499\*** \$12.5/mo. (excl. tax, 12 mos. @ \$12.50/mo. + \$100.00 one-time fee)

THANKS BUNDLE	Add \$4.00
8000 1/2" x 100" 100% NYLON Tarpaulin	
8000 1/2" x 100" 100% Support	Add \$4.00
8000 1/2" x 100" 100%	Add \$4.00

1-800-863-7395

[www.dell.com](http://www.dell.com)

[illegible]

# \$0 web hosting

(WITHOUT AD BANNER)



**IF you're paying for web hosting, you are overpaying.** Come join the lead and get **COST-FREE** BANNER-FREE web hosting service.

- [www.YOURDOMAIN.com](http://www.YOURDOMAIN.com) HOSTING
  - 30MB web storage + FTP access
  - [you@yourdomain.com](mailto:you@yourdomain.com) POP email accounts + email forwarding
- A minimum \$55 fee applied for domain transfer (see our website for details.)

} **\$0**



**Own your domain name for as low as US\$15/year.**  
.us domain registration now available

[www.doteasy.com](http://www.doteasy.com)

# The Computer PAPER

Canada's Computer Information Source



BC EDITION  
JANUARY 2001

## Commentary

- 6 From the Editor
- 7 Letters
- 10 The Last Byte

## New & Notable

- 10 Survey says Canadians aren't connected
- 12 What's New
- 14 Mayday tactic sounds into audio effects
- 21 Condu/Tel 2000: Who wins?
- 27 Portents & announcements
- 30 You rate stocks—and that's a complaint
- 70 The BlackBerry Comdex shares

## The Year Ahead

- 12 New ways of computing
- 16 Revisiting future visions
- 44 New Year's resolutions for vendors

## Hands On

- 52 Take a breath to calve  
Digital artists get closer to real media experience
- 52 Double Sidekickers: Microsoft game controllers
- 58 Personal Finance punch-up  
Money takes a kick: How long time real. Backer
- 72 Shopping tips for files  
TOP test lab reports on multi-megapixel cameras
- 76 Digital camera survey

## Online & Connected

- 88 Netscape 4.0 launched
- 88 Wasting your own Web site: Part 18  
Introduction to AOL
- 89 Always is HTML editor on a screen

## Careers & Training

- 100 Office Suite training: Worksheet forwarding
- 100 Microsoft's approach good for BGC beginners
- 107 Quick tips: Getting more from Outlook 2000

## Reader Services

- 108 Advertising Order
- 109 Business Directory
- 109 Marketplace





**funcow.com**

## The Online Family Network

A user friendly net environment with a wealth of information and services

Online Directories, Search categories in Education, Gardening, Home Improvement, Sports, Travel and more.  
Online Shopping Network, with over 200 E-vendors and Funcow server stores for extended shopping fun.  
Member Services: Member Classifieds (free service showing members to buy and sell online).  
The restaurant, Recipeville, Free books.  
Specific Sections for Everyone: Funcow Kids Club, The Zone for Teens, Women, Daddy-O, Mature@Funcow.

# Free Internet access and Email Forever!

Yes, Forever!

**Signup Now!**

Download your free Internet access software from  
<http://www.funcow.com>

Expanding to 100+ cities



anywhere in Canada ...

**Free Shipping** anywhere in Canada

**Over 40,000 Items** to choose from



**\$165**



**\$54**



**\$675**



**\$385**



**\$68**



**\$245**

Join the online club  
within Funcow!

**funcow.com**  
**KIDS CLUB**

For kids  
3 to 12 years old

Teen's only!

For Teens and young  
adults, aged 13-19

For Empowered Women

**THE** site for  
**Women**

Playground for men  
**DADDY-O**

Everything the most  
male would find of interest

**MATURE**  
Funcow

For Canadians  
50 and over

Prices and Specifications valid within Canada ONLY.  
All prices quoted in Canadian dollars and subject to change without prior notice. Prices include shipping charges within Canada ONLY.  
All purchases will be charged provincial sales tax and GST, where applicable. Copyright © 2000, Funcow.com Inc. All rights reserved.  
Trademarks and Trademarks, registered or otherwise, are the property of their registered holders.









# Reuben Jackson. Inventor.

Inspiration is all around us. Reuben finds his in jazz.

Bebop, new ballads, swing and poetry. Capturing these feelings, sharing them, requires new kinds of tools. Digital photography for example. Think of it as photography, part 2. No film, no developing, keep only the pictures you want and delete the rest.

Print them at home, without a computer, or even cables. Or send them to everyone you know everywhere in the world from your PC right now. Make them, share them, share them, invent.

Digital images from hp  
[www.hp.com](http://www.hp.com)



# Survey says Canadians most connected

DS9639703—Canadian households emerged as the most Web-connected in a global study released in November, which compared Internet use in 20 countries. In addition to being the most likely to have Internet access, Canadians also spent the most time online, according to Procter&Kendall Coopers and in Canadian Consumer Technology Study 2000.

The consulting company said that almost half—48.2 percent—of the Canadian popu-

lation is now online at home. That compares with numbers for some study cases as high as the other countries surveyed: the U.S. 43 percent, Australia 34 percent, and Britain, France and Germany a combined average of 26 percent.

Of Canadian pulled who were not yet connecting to the Internet from home, 24.3 percent said they expect to hook up to the Internet within a year. Of those, and over 70 percent said they were considering high-

speed connections.

Procter&KendallCoopers said that of the six countries surveyed, only Germany where 8000 connections are common had more-percentage high-speed access.

Of Canadian households with Internet access, 22 percent are using high-speed connections. Eighteen percent are using cable modems and four percent are using DSL technology. The 1999 release of the survey found that 19 percent of households had wide-

area of high-speed access.

"Clearly high-speed connections are on the rise" and Brian Lyman, leader of the Information, Communications and Entertainment/Media practice at Procter&KendallCoopers in Canada. "However, today's high-speed market is still largely an early adopter market." He says up the general population, service providers will have to develop more compelling value propositions.

The survey data highlights the fact that not is the primary driver behind both the migration of consumers to high speed," he said.

Procter&KendallCoopers said Canadians who access the Internet from home also spent an average of 3.1 hours a week online up from 2.9 hours a week last year.

The U.S. results saw the time spent online drop to 4.2 hours a week from 5.5 hours a week last year. Procter&KendallCoopers said that result may reflect the maturing of online access and the possibility that people there are becoming more efficient in their use of the Internet.

In Australia, Internet users spent an average of 3.4 hours a week online, while the time up for the three European countries was 5.2 hours a week.

Procter&KendallCoopers said that much of the growth in household Internet access in Canada reported in the 2000 survey can be attributed to Quebec, where penetration rose to 42 percent from just 28 percent in 1999.

In the rest of Canada, 46 percent of households have Internet access, up just two per cent since 1999.

When Canadians go online, just over 10 percent use the Web for research and information. More than 10 percent use email, while online shopping was reported by 10 percent of users up from 10 percent in 1999.

The survey also found that 44 percent of Canadian with home Internet connections access online government services, a number that was up from 42 percent a year ago.

"We're at the beginning of massive growth in the use of a government services in Canada," said Brian Lyman, a government leader for Procter&KendallCoopers. "With the federal government pledging to make all services available electronically by 2004 and Ontario targeting 2003, the use of a government services should grow rapidly."

The survey found that supply digging up information on government programs and services in the 76 government's publicly report of by most Canadians (10 percent). About 16 percent say they have used the Web to look up a phone number or address of a government agency while 10 percent have searched for work using government databases.

Procter&KendallCoopers said that, not surprisingly, fewer respondents have used services that have not recently become available, such as online filing of tax returns reported by 12 percent in submitting an application for a service or payment (10 per cent).

"It is important for governments to consider how they provide their electronic services, and not whether is the private or public sector the most direct in connection."

The survey found that the reason 61 per cent of Canadian choose offered for using e-government services was that a real time

Continued on page 28

Purchase on-line, [www.rapidfusion.com](http://www.rapidfusion.com)

## Awesome Holiday Deals!



**Free delivery until December 31st\***  
**15-day money-back guarantee**  
**24 x 7 x 365 Technical Support**  
**We're a local distributor that's been in business for over 15 years.**  
**Service & quality guaranteed!**

**Everything must be sold! Warehouse blowout special!**

Limited quantities available. Don't miss out. First come first serve.

Call our sales department to find out more, 416-1953.

AMP 4000 PLUS  
 15" Mon. 32 MB RAM  
 8 Meg ADP Video Card  
 4GB Unbuffered Eide  
 Sound Card w/ Speakers  
 Mouse & Keyboard  
 360 Hours

**\$499**

AMP 4000BII  
 15" Mon. 32 MB RAM  
 8 Meg ADP Video Card  
 8GB CD-ROM Drive  
 Sound Card w/ Speakers  
 Mouse & Keyboard  
 360 Hours

**\$699**

**15-day money-back guarantee**



**Computers only. Monitor & Operating system extra - Monitors start at \$189**

Fortinet 120 500 MHz  
 128 MB 32 MB RAM  
 12 Meg ADP Video Card  
 4GB ADP Video Card  
 4GB - 8000 Drive  
 PCI Sound w/ Speakers  
 Mouse & Keyboard  
 360 Hours

**\$899**

Fortinet 120 500 MHz  
 128 MB 32 MB RAM  
 12 Meg ADP Video Card  
 8 Meg ADP Video Card  
 CD Writer  
 8GB x 820000 Drive  
 PCI Sound w/ Speakers  
 Mouse & Keyboard  
 360 Hours

**\$999**

System specs. will vary slightly - upgrades available

Network, Repair, and on-site services also available call 416-1953 for details

\* All free deliveries must be within BC

**Other Services we offer:**

- eCommerce
- Web Design
- Web Hosting
- ASP
- Network Installations
- Technical Support
- Software
- POS

**rapidfusion.com**  
 TECHNOLOGIES INC.

**3112 Boundary Road**  
**Burnaby, BC V5M 4A5**  
**Tel: (604) 416-1953**



# FLATRON

## A Sight For Sore Eyes



**795FT**

*Perfectly Flat for  
reduced eye strain.*

**LCD**  
DIGITAL  
UNIVERSAL SERIAL BUS



Model	View Orientation	Display Panel	Scan Area	Resolution (Max)
7950	17" (38")	26 mm	1280 x 1024 (5:4)	75 kHz
7951	17" (38")	26 mm	1440 x 1024 (5:4)	80 kHz
8051	19" (48")	26 mm	1600 x 1200 (5:4)	107 kHz



**CD Rewritable Drive**  
*(16x/4x) Reliable storage  
from a world leader*



**LPO-LDS Digital  
PC Camera**  
*Wide CRT, USB port,  
standard software.  
Capture clear color  
images from your PC.*



255-784-2820

**CompuSmart**  
Computer & Software Sales  
Specialists - Retailers - Service

Victoria: 250-383-2476

**Visions**  
THE BEST value in computer sales

1-800-208-2888



Digitally yours

[www.lg.ca](http://www.lg.ca)

For more information call 1-800-461-2602

000000



# Is your website this **reliable?**

Website hosting from AT&T Canada.



AT&T Canada now offers a full range of sophisticated, reliable Internet website hosting services – plus the dependability of a 99.9% uptime guarantee! Plus, with one of our Business Services web bundles you can choose your access option, get a domain name and website and set-up multiple e-mail accounts.

State of the art facilities

- Up to 100MB of web space
- Up to 2GB of transfer
- CGI Access
- E-mail address with auto response and forwarding
- Traffic logs
- SSL security
- 24/7 network monitoring
- Fast, San Ultra servers
- UPS with diesel back-up
- Multiple OC-3 connections
- UNIX based Microsoft FrontPage Hosting

#### Domain Name Search And Registration

Take advantage of online domain name search with instant activation. AT&T Canada is a Premier Partner with the InterNIC, guaranteeing you the fastest registration possible.

#### Satisfaction Guaranteed

If you aren't completely satisfied after 30 days, cancel – without penalty. We also guarantee a minimum of 99.9% website availability, or you'll get 25% of your monthly fee refunded!

AT&T Canada website hosting. We'll make sure your website is always open.

From as low as

**\$34<sup>95</sup>**  
/month

- 100MB website
- 750MB data transfer

Call before January 30<sup>th</sup>,  
2001 and we'll waive up to  
\$1,000\* on the set-up fee.

As one of the leading business-focused global providers, we're committed to bringing you reliable leading-edge solutions for all your local, long-distance and Internet needs.

For more information talk to your AT&T Canada  
Sales Representative or call us today at  
**1-877-847-5808**  
or visit [www.attcanada.ca/business/webhost.html](http://www.attcanada.ca/business/webhost.html)

\* Set-up fee waived \$1,000. Offer extends from \$1,000 set-up. Not on all our website for selected clients.  
© 2001 AT&T Canada. Website guarantee, terms and conditions apply. Features subject to change.  
\*AT&T Group. Other website names. \*\*\$1,000\* Cash Limit order. Service.  
Please open the following registration code 9011



©2001

**Table 1**

**Continued from page 33**  
 Plinked Inc., a 50-state and New York-based company where 2000plus product helps build wireless applications. The company will be looking at applications that help mobile users find nearby business locations.

Also participating will be SprintNextGen Inc., the web portal joint effort of AT&T Intellectual and Canada's largest phone company operator and Internet access provider Bell Inc., which owns the lion's share of Bell Canada. SprintNextGen will connect mobile users to the YellowPages as business links with "borderless" content.

Cons. Agencies Awarded 1998-1999 Grants: \$100,000,000

senioring (Eimer) trial participants read four (ad-  
 ix) plots—each a modification of most-challenge  
 or baseline text.

The company said that for the United Kingdom market, it is using current fully variable rates ranging from one to a maximum of 10% per annum.

Current total sales: 188,000 wireless subscribers  
 Index is now surpassed by Bell Canada's competitor  
 Telus Corp. in October. Telus is combining the  
 Clearnet network with its own wireless Telus  
 Satellite network.

1000

Copyrighted Material Not to be Reproduced

**MOORE'S WIRE.**—A recently published report says the market for welding technology is now almost closed in the home and is now in the home-repairing market taken off in the real, free market.

The study from Götting, Germany (Environmental 107) predicts that the impact for home-rebidding airport technologies will generate \$500.6 million during the control year to prevent crashes in 2016.

Mike Wolf, manager of the research studio, says and data services, and that, in the future, a multi-state of devices will be enabled for enterprise customers.

These issues involved internal sharing in the small to medium capital funds such as 80% Blue. There will be meeting and extremely close contact with our applications. That will then be followed by a subsequent presentation only all systems of the fund.<sup>12</sup> (e-mail)

The report, entitled *From the Edge of Space: National Climate Model Analysis*, concludes that climate networking will bring the greatest potential for information.

Currently, in the U.S., the radio frequency (RF) portion of the electromagnetic spectrum makes accounts for 12 percent of total assets shipped. But the research says, will increase to around 25 percent by 2006.

The report goes on to say that "even more concerning" that "our growing economic interdependence" in the "realm of commerce" will need to "counterbalance" these "instabilities" "collectively" in their

At this point, the study says, the system manufacturers will begin to respond as to how their solution compares as part of their requirements.

— [www.pearsoned.com](http://www.pearsoned.com)

1000

Morpher turns  
sounds into  
audio effects

Which of the following statements is true? A. Intel Corporation makes powerful technology for humans. productivity, faster office systems, game players and various other uses. It has made one for kids. The answer is... both.

## United States Department of Homeland Security

1. *Journal of the American Medical Association*, 1997; 277: 1001-1005.

**Figure 1**

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 103–110

Most people are familiar with Intel's processors, chips, and networking products, but Intel also makes cool toys. One of these is the Computer Based Modeling from the Intel Play program.

The Internal Modem is a digital encoding and playback device with a microphone built onto the card. It provides what is called full duplex (or a particular mode). Data can be sent around the neighborhood and capture up to four minutes of digital audio then bring it all back home to the PC, where the sounds can be transferred to the computer and stretched beyond recognition using one of the many filters built into the software, or be released to the world.

They can also hook the Sound Blaster directly to the PC and use it as a microphone, turning your voice into an endless "stream" or make the cardboard sound like you're in a thunderstorm and much more. After you've moved your sounds and manipulated them, you can use the software to send your sounds to other sound cards, even more speakers.

The second idea phase software is designed to work on Windows VISTA systems, and requires at least a 1.5 GHz Intel Pentium processor and 2 GB of RAM for optimal performance. It's designed for kids age six and up. And remember, even older kids (age 10 or 11 years old) can still enjoy recording the auralization process in effect.

[illegible]

**Domain Registration**

**was never faster and easier.**

**[www.GetDomain.com](http://www.GetDomain.com)**

Get **Domain** before they're all gone!

GetDomain.com is your domain registrar for all .com, .net, .org and .co's. GetDomain.com has some of the lowest prices around with \$25/year for .com's and \$40/year for .co's and we offer real-time domain processing. So what are you waiting for?

GetDomain.com









<b>Great Gift Ideas for everyone</b>		<b>Microsoft</b>  <b>Office 2007</b> <b>\$122</b> <small>Microsoft Office 2007 Home &amp; Business</small>		<b>6-Speed</b>  <b>\$124</b> <small>6-Speed 600 dpi printer</small>		<b>brother</b> <small>Power</small>  <b>\$339</b> <small>Brother DCP-162C</small>	
<b>Wacom</b> <small>graphics</small>  <b>\$126</b> <small>Wacom Intuos3</small>		<b>intel</b>  <b>i3</b> <small>Intel Core i3-540</small>		 <b>i7</b> <small>Intel Core i7-960</small>		<b>KFC</b>  <b>\$9.95</b> <small>KFC Double Down</small>	
<b>HP</b>  <b>\$116</b> <small>HP Color LaserJet</small>		 <b>\$85</b> <small>HP LaserJet</small>		 <b>\$94</b> <small>HP LaserJet</small>		<b>HP</b>  <b>\$565</b> <small>HP DesignJet Z6800</small>	
<b>HP</b>  <b>\$126</b> <small>HP LaserJet</small>		<b>HP</b>  <b>\$116</b> <small>HP LaserJet</small>		<b>HP</b>  <b>\$85</b> <small>HP LaserJet</small>		<b>HP</b>  <b>\$94</b> <small>HP LaserJet</small>	

 <p><b>Golden Orb</b> For Intel® Pentium® 470 ExpressCard CPU</p> <p><b>\$18</b></p>	 <p><b>Thermaltake Chrome Orb</b> For USB Device Socket 3.1/Passive</p> <p><b>\$18</b></p>	 <p><b>AnyPoint Wireless 1.1/11Mbps</b> USB Model - AP180N/11Mbps USB Model - AP180N/11Mbps</p> <p><b>\$139</b></p>	 <p><b>Logitech</b> Logitech® Mouse Logitech® Mouse</p> <p><b>\$6.6</b></p>	 <p><b>OptiCAM</b> OptiCAM Pro 9600</p> <p><b>\$130</b></p>	 <p><b>Acer</b> Acer 4800 Scanner</p> <p><b>\$7.3</b></p>
 <p><b>Super Orb</b> For USB Device Socket 3.1/Passive</p> <p><b>\$4.5</b></p>	 <p><b>Blue Orb</b> Logitech® Mouse Logitech® Mouse</p> <p><b>\$18</b></p>	 <p><b>Logitech</b> Logitech® Mouse Logitech® Mouse</p> <p><b>\$139</b></p>	 <p><b>Logitech</b> Logitech® Mouse Logitech® Mouse</p> <p><b>\$6.6</b></p>	 <p><b>OptiCAM</b> OptiCAM Pro 9600</p> <p><b>\$130</b></p>	 <p><b>Acer</b> Acer 4800 Scanner</p> <p><b>\$7.3</b></p>

[illegible][illegible]


**COMPAQ**   **SONY**   **MicroConcepts** 

102 - 1245 West Broadway  
 Vancouver, B.C. V6H 1G7

**\$100 OFF!**  
Get a \$100 Mail-In Rebate on PCG-P510 & PCG-P550

Get a \$100 Mail-In Rebate on PCG-P510 & PCG-P550



**SONY**

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P550**  
AMD K6-2+ 500MHz  
64MB Memory  
10GB Hard Drive  
33.3MHz DVD-ROM  
56Kbps Fax Modem  
13" XGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P550**  
AMD K6-2+ 500MHz  
64MB Memory  
10GB Hard Drive  
33.3MHz DVD-ROM  
56Kbps Fax Modem  
13" XGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P550**  
AMD K6-2+ 500MHz  
64MB Memory  
10GB Hard Drive  
33.3MHz DVD-ROM  
56Kbps Fax Modem  
13" XGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P550**  
AMD K6-2+ 500MHz  
64MB Memory  
10GB Hard Drive  
33.3MHz DVD-ROM  
56Kbps Fax Modem  
13" XGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P550**  
AMD K6-2+ 500MHz  
64MB Memory  
10GB Hard Drive  
33.3MHz DVD-ROM  
56Kbps Fax Modem  
13" XGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P550**  
AMD K6-2+ 500MHz  
64MB Memory  
10GB Hard Drive  
33.3MHz DVD-ROM  
56Kbps Fax Modem  
13" XGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**PCG-P510**  
Local Processor: 600MHz  
64MB Memory  
30GB Hard Drive  
27" Max. CRT Monitor  
56Kbps Fax Modem  
15" SXGA TFT Display  
Link 800 Interface  
Wireless LAN: NTSC

**Students and all Government agencies will receive an additional 3% discount on all Sony products.**

**TravelMate 360TE-N**  
Intel Pentium III 600MHz  
128MB PC100 Memory  
16GB Hard Drive  
13.3" TFT XGA Display  
56Kbps Modem  
Wireless LAN  
FDG600-ROM Combo  
IEEE-1394 Port

Model	CPU	RAM	HDD	CRT	Display	Price
200TX	Celeron	32MB	5GB	24X	12.1" HP	\$1,310
200T	Celeron	64MB	5GB	24X	12.1" TFT	\$1,810
350TE	P3-550	64MB	10GB	24X	13.3" TFT	\$3,010
351TEV	P3-700	128MB	10GB	DVD	13.3" TFT	\$3,500
521TE	P3-600	64MB	5GB	24X	13.3" TFT	\$2,410
521TEV	P3-600	64MB	DVD	DVD	14.1" TFT	\$3,900
541TE	P3-650	64MB	10GB	DVD	14.1" TFT	\$3,100
525TEV	P3-700	128MB	10GB	DVD	14.1" TFT	\$3,300
621TEV	P3-650	128MB	12GB	DVD	13.3" TFT	\$3,200
620TEV	P3-700	128MB	10GB	DVD	13.3" TFT	\$3,800
710TEV	P3-650	128MB	12GB	DVD	15" TFT	\$3,700
730TEV	P3-700	128MB	10GB	DVD	15" TFT	\$4,100
730TEV	P3-750	128MB	10GB	DVD	15" TFT	\$4,600

**TravelMate 730TLV**  
Intel Pentium III 600MHz  
128MB PC100 Memory  
20GB Hard Drive  
3X DVD-ROM  
15" TFT XGA Display  
56Kbps Modem  
10/100Base-T Ethernet  
Fingerprint Security System

Model	CPU	RAM	HDD	CRT	Display	Price
521TE	Celeron	32MB	5GB	24X	12.1" HP	\$1,400
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900

**TravelMate 730TLV**  
Intel Pentium III 600MHz  
128MB PC100 Memory  
20GB Hard Drive  
3X DVD-ROM  
15" TFT XGA Display  
56Kbps Modem  
10/100Base-T Ethernet  
Fingerprint Security System

Model	CPU	RAM	HDD	CRT	Display	Price
521TE	Celeron	32MB	5GB	24X	12.1" HP	\$1,400
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900

**Microcenter Exclusive Offer!**

**Acer 3%**

Students and all Government agencies will receive an additional 3% discount on all Acer notebooks and systems.

**"Free Second Year Warranty"**

**"64MB Memory or USB Camera"**

**All TravelMate Models Except TravelMate 2000K**

Model	CPU	RAM	HDD	CRT	Display	Price
200TX	Celeron	32MB	5GB	24X	12.1" HP	\$1,310
200T	Celeron	64MB	5GB	24X	12.1" TFT	\$1,810
350TE	P3-550	64MB	10GB	24X	13.3" TFT	\$3,010
351TEV	P3-700	128MB	10GB	DVD	13.3" TFT	\$3,500
521TE	P3-600	64MB	5GB	24X	13.3" TFT	\$2,410
521TEV	P3-600	64MB	DVD	DVD	14.1" TFT	\$3,900
541TE	P3-650	64MB	10GB	DVD	14.1" TFT	\$3,100
525TEV	P3-700	128MB	10GB	DVD	14.1" TFT	\$3,300
621TEV	P3-650	128MB	12GB	DVD	13.3" TFT	\$3,200
620TEV	P3-700	128MB	10GB	DVD	13.3" TFT	\$3,800
710TEV	P3-650	128MB	12GB	DVD	15" TFT	\$3,700
730TEV	P3-700	128MB	10GB	DVD	15" TFT	\$4,100
730TEV	P3-750	128MB	10GB	DVD	15" TFT	\$4,600

Model	CPU	RAM	HDD	CRT	Display	Price
521TE	Celeron	32MB	5GB	24X	12.1" HP	\$1,400
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900

Model	CPU	RAM	HDD	CRT	Display	Price
521TE	Celeron	32MB	5GB	24X	12.1" HP	\$1,400
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900
521TE	Celeron	64MB	5GB	24X	12.1" TFT	\$1,900

**TOSHIBA**

**Satellite Pro 4330**

Intel Celeron 400MHz  
128MB Memory  
15GB Hard Drive  
15" TFT Display  
56Kbps V.90 Fax Modem  
DVD-ROM Drive  
Built-in Sound System

Model	CPU	RAM	HDD	CRT	Display	Price
200TX	Celeron	32MB	5GB	24X	12.1" HP	\$1,310
200T	Celeron	64MB	5GB	24X	12.1" TFT	\$1,810
350TE	P3-550	64MB	10GB	24X	13.3" TFT	\$3,010
351TEV	P3-700	128MB	10GB	DVD	13.3" TFT	\$3,500
521TE	P3-600	64MB	5GB	24X	13.3" TFT	\$2,410
521TEV	P3-600	64MB	DVD	DVD	14.1" TFT	\$3,900
541TE	P3-650	64MB	10GB	DVD	14.1" TFT	\$3,100
525TEV	P3-700	128MB	10GB	DVD	14.1" TFT	\$3,300
621TEV	P3-650	128MB	12GB	DVD	13.3" TFT	\$3,200
620TEV	P3-700	128MB	10GB	DVD	13.3" TFT	\$3,800
710TEV	P3-650	128MB	12GB	DVD	15" TFT	\$3,700
730TEV	P3-700	128MB	10GB	DVD	15" TFT	\$4,100
730TEV	P3-750	128MB	10GB	DVD	15" TFT	\$4,600

**Systems Inc.**

**Government And Corporate Purchases**

Order & Purchase

For Orders And Bulk Air Acceptance

All Prices Subject To Change

Without Prior Notice

**Call Today**

**Netbooks**

**Desktops**

**Monitors**

**\$1.99**







www.mr-notebook.com

WE DARE YOU TO COMPARE!!

## NOTEBOOK COMPUTERS

486'S From **\$299!!** Pentium From **\$649!!**

THE LOWER MAINLAND'S  
BIGGEST SELECTION OF  
CORPORATE PRE-OWNED  
LAPTOP COMPUTERS!!

IBM	TP P150 w/CD	\$1399
PANASONIC	P150	\$1399
Toshiba	P100 w/CD	\$799
IBM	P90-P133(CD)	\$999
IBM	755 P75 w/CD	\$799
IBM	ThinkPad 486/100	\$499
NEC	VERSA 486/75	\$499
Toshiba	486/33	\$199
IBM	ThinkPad 486's fr.	\$399
NEC	VERSA 486's (3)	\$299

USED NOTEBOOKS...  
1 YEAR WARRANTY...  
OFFER AVAILABLE UNTIL  
DECEMBER 31/2000.  
SHOP WITH ABSOLUTE  
CONFIDENCE!

Mr. Notebook (Canada) Call... 430-5891  
RETAIL SHOWROOM 4849 KINGSWAY  
(ACROSS THE STREET FROM THE BAYVIEW/METRO TOWN)  
MON-FRI 10:00AM - 5:00PM  
SATURDAY 10:00AM - 5:00PM

## NEW & NOTABLE

### Resizing in style

88—but only a job resizer, this app focuses on that time just before the search for a job begins. The screen is divided into the Resume, a most flexible segment letters use to be linked to the firm's history. Another section brings the latest news of high-profile companies from around the world. Other features include a resume creator, a virtual office machine to group by, close email tips, and a flexible-gate calculator.

http://www.ring.com

### Showroom for short films

89—Fans of short film productions can now sample the Creative Commons of Singapore's up and coming directors at this attractive site. Filmworksites brings together the best of local and international filmmakers to showcase a selection of their most striking works, and offers a look for the film's history. Another section brings the latest news of high-profile companies from around the world. Other features include a resume creator, a virtual office machine to group by, close email tips, and a flexible-gate calculator.

http://www.filmworksites.com

### 2001 Showrooms.com awards

89—Honorees for the year's best showroom programs are being sought for the fifth annual Showrooms.com awards, due to be presented in Jan. 2. These will be for the awards to commend the categories that are specific to individual operating systems—best Windows program, best Mac program, best Web program, best Java program, and the fifth category the best business program, which is open to a product running on any operating system as long as it is available at no cost.

http://www.showrooms.com



## CRYSTAL COMPUTER LTD.

4551A Kingsway, Surrey BC V5H 2A7  
Tel: (604) 436-4041 Fax: (604) 436-4000  
email: info@crystalcomp.bc.ca  
web: http://www.crystalcomp.bc.ca  
Mon-Fri: 10am - 6pm  
Sat: 10am - 5pm  
Sun: Holidays by appointment

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

2004 HP 100	100	2004 HP 100	100	2004 HP 100	100
Optical mouse	100	Optical mouse	100	Optical mouse	100
Wireless keyboard	100	Wireless keyboard	100	Wireless keyboard	100
Wireless mouse	100	Wireless mouse	100	Wireless mouse	100

# DELL4me

## INTRODUCING THE NEW INSPIRON™ 8000 NOTEBOOK.

A VERSATILE PERFORMER, IT ALSO DOES A GREAT IMITATION OF A DESKTOP

### INSPIRON 8000 G600GT

Designed for Mobility

**Intel® Pentium® M Processor at 600MHz**  
1.8" Flat Panel Active Matrix LCD Display  
15.5" Screen (14.1" Active Area) 1600 x 1200  
Media: Sony Drive  
Modem: 56K V.90/V.92  
32 GB Hard Drive 40 GB Hard Drive  
Intel® Wireless™ 802.11b/g Wireless LAN  
MS Office 2003  
1 Year, 100,000 Miles Service  
FREE One Year Internet Access\*

**\$2399**

12.5" Flat Panel  
Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

Media: Sony Drive  
Modem: 56K V.90/V.92

Intel® Pentium® M Processor at 600MHz  
1.8" Flat Panel Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)



Verdict: Intel and performance combine in the new Inspiron 8000 notebook. An incredible desktop replacement, it also comes at an affordable price. With up to 32MB of Video RAM in the latest ATI Mobility Radeon card, the Inspiron 8000 notebook delivers high-speed 2D and 3D graphics.

### NEW INSPIRON 4000 G600GT

Style & Performance

**Intel® Pentium® M Processor at 600MHz**  
1.8" Flat Panel Active Matrix LCD Display  
15.5" Screen (14.1" Active Area) 1600 x 1200  
Media: Sony Drive  
Modem: 56K V.90/V.92  
32 GB Hard Drive 40 GB Hard Drive  
Intel® Wireless™ 802.11b/g Wireless LAN  
MS Office 2003  
1 Year, 100,000 Miles Service  
FREE One Year Internet Access\*

**\$2799**

12.5" Flat Panel  
Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

Media: Sony Drive  
Modem: 56K V.90/V.92

Intel® Pentium® M Processor at 600MHz  
1.8" Flat Panel Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

### NEW INSPIRON 8000 G700GT

Performance and Mobility

**Intel® Pentium® M Processor at 600MHz**  
1.8" Flat Panel Active Matrix LCD Display  
15.5" Screen (14.1" Active Area) 1600 x 1200  
Media: Sony Drive  
Modem: 56K V.90/V.92  
32 GB Hard Drive 40 GB Hard Drive  
Intel® Wireless™ 802.11b/g Wireless LAN  
MS Office 2003  
1 Year, 100,000 Miles Service  
FREE One Year Internet Access\*

**\$3549**

12.5" Flat Panel  
Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

Media: Sony Drive  
Modem: 56K V.90/V.92

Intel® Pentium® M Processor at 600MHz  
1.8" Flat Panel Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)



Inspiron 8000 notebook

**ALL INTERNET. ALL THE TIME.** Get one year of AOL Canada membership with the purchase of any Dimension desktop or Inspiron notebook for home use.\* Here's what you'll get: unlimited internet access; email with up to 7 unique email addresses; instant messaging on AOL; built-in features to help you keep in touch with friends and family; parental controls to help safeguard your kids; online games and free 15-hour AOL customer service by phone or online. Value of \$275. \*Some restrictions may apply, see footnote 1.

### DIMENSION™ DESKTOP SOLUTIONS

#### DIMENSION 4500cs

Advanced Desktop Solution

**Intel® Celeron® Processor at 600MHz**  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area) 1600 x 1200  
Media: Sony Drive  
Modem: 56K V.90/V.92  
32 GB Hard Drive 40 GB Hard Drive  
Intel® Wireless™ 802.11b/g Wireless LAN  
MS Office 2003  
1 Year, 100,000 Miles Service  
FREE One Year Internet Access\*

**\$799**

12.5" Flat Panel  
Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

Media: Sony Drive  
Modem: 56K V.90/V.92

Intel® Celeron® Processor at 600MHz  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

#### DIMENSION 4500cs

Advanced Desktop Solution

**Intel® Pentium® M Processor at 600MHz**  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area) 1600 x 1200  
Media: Sony Drive  
Modem: 56K V.90/V.92  
32 GB Hard Drive 40 GB Hard Drive  
Intel® Wireless™ 802.11b/g Wireless LAN  
MS Office 2003  
1 Year, 100,000 Miles Service  
FREE One Year Internet Access\*

**\$1399**

12.5" Flat Panel  
Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

Media: Sony Drive  
Modem: 56K V.90/V.92

Intel® Pentium® M Processor at 600MHz  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

#### DIMENSION 4100 866r

Advanced Performance Desktop

**Intel® Pentium® M Processor at 600MHz**  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area) 1600 x 1200  
Media: Sony Drive  
Modem: 56K V.90/V.92  
32 GB Hard Drive 40 GB Hard Drive  
Intel® Wireless™ 802.11b/g Wireless LAN  
MS Office 2003  
1 Year, 100,000 Miles Service  
FREE One Year Internet Access\*

**\$1799**

12.5" Flat Panel  
Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

Media: Sony Drive  
Modem: 56K V.90/V.92

Intel® Pentium® M Processor at 600MHz  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

#### DIMENSION 4100 933v

Advanced Performance Desktop

**Intel® Pentium® M Processor at 600MHz**  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area) 1600 x 1200  
Media: Sony Drive  
Modem: 56K V.90/V.92  
32 GB Hard Drive 40 GB Hard Drive  
Intel® Wireless™ 802.11b/g Wireless LAN  
MS Office 2003  
1 Year, 100,000 Miles Service  
FREE One Year Internet Access\*

**\$2499**

12.5" Flat Panel  
Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

Media: Sony Drive  
Modem: 56K V.90/V.92

Intel® Pentium® M Processor at 600MHz  
4.0GB DIMM (2GB x 2) 40 GB HD  
17" TFT-Active Matrix LCD Display  
15.5" Screen (14.1" Active Area)

\*INCLUDES WINDOWS MILLENNIUM EDITION™ - THE HOME VERSION OF THE WORLD'S FAVORITE SOFTWARE™

©2004 Dell Inc. All rights reserved. Dell, the Dell logo, and Inspiron are trademarks of Dell Inc. in the U.S. and other countries. Intel, the Intel logo, and Pentium are trademarks of Intel Corporation. Microsoft, the Microsoft logo, and Windows are trademarks of Microsoft Corporation. AOL is a trademark of America Online, Inc. All other trademarks are the property of their respective owners.

# 1-800-863-7395

©2004 Dell Inc. All rights reserved. Dell, the Dell logo, and Inspiron are trademarks of Dell Inc. in the U.S. and other countries. Intel, the Intel logo, and Pentium are trademarks of Intel Corporation. Microsoft, the Microsoft logo, and Windows are trademarks of Microsoft Corporation. AOL is a trademark of America Online, Inc. All other trademarks are the property of their respective owners.

# www.dell.ca

©2004 Dell Inc. All rights reserved. Dell, the Dell logo, and Inspiron are trademarks of Dell Inc. in the U.S. and other countries. Intel, the Intel logo, and Pentium are trademarks of Intel Corporation. Microsoft, the Microsoft logo, and Windows are trademarks of Microsoft Corporation. AOL is a trademark of America Online, Inc. All other trademarks are the property of their respective owners.









# Pentium 4 announced

## AMD stays the course

By Sean Connolly

Ending months of rumors and speculation, Intel officially announced its 15th-generation Pentium 4 processor on Nov. 20, 2000, marking its first new processor micro-architecture since the release of the Pentium Pro in 1997.

The newly designed processor features 41 million transistors, and, in launch, will come in 1.4 and 1.5 GHz (upgraded) flip-chip models. It will run on a 400 MHz front side bus, which is three times the speed of the Pentium 3 processor supported bus for last processors.

The Pentium 4 will include Secondary SMD L2 cache (256K) which features 244 new instructions that Intel believes go hand in hand with the Internet experience such as video, multimedia, 3D rendering, imaging, and e-commerce. It is designed to be a viable replacement for the Pentium 3 system setup including Internet connections speed allowing users with lower connections to view all content available on line with the highest speed, but in a more limited fashion.

The release of the Pentium 4 also marks a new numbering scheme for the Pentium line, dispensing with Roman numerals in favor of "4" — a move designed to reflect the new micro-architecture as well as the simplicity.

The announcement of the Pentium 4 chips is a much needed boost for Intel, which has been playing catch up to arch-rival AMD following the reveal of Intel's 1.3 GHz version of the Pentium III and AMD's successful launch of the 1.25 GHz Athlon processor. Intel's recent launch has been one of price cuts over time. Intel's design the 50 percent increase in clock speed over the 1 GHz Pentium III. Intel's own benchmarking has only generated increases of up to 47 percent in most common applications, with figures more typically below 30 percent.

These figures would seem to indicate a not too far off for the new Pentium 4 chip. Of course, the benchmarking numbers so far have been generated using applications not optimized to take advantage of the new 500 MHz core and numbers could speed considerably following their optimization.

To be worth noting that, although the Pentium 4 will support both Double Data Rate (DDR) SDRAM and Rambus DRAM technology, the only motherboards currently available for the Pentium 4 format support for DDRAM only. Intel's forthcoming "Brookdale" chipset will be able to handle DDR, SDRAM, or native mode (in other words, no memory controller is in the new 500 MHz chip). Because many have their doubts about the efficiency and speed of DDRAM, it will be interesting to see what kind of performance gain, if any, will be afforded by a switch to DDR, SDRAM.

### PC systems announced

Vendors are expected to start announcing and shipping new PC models incorporating

the new chips at the same time as the announcement. And as we move past the first half, two major manufacturers' announcements of plans for Pentium 4 based systems, with many more sure to follow.



Longest Corolla Corp. announced a mid-December availability of its Corolla Designs D35 and Desktop Workstation 500 models which will run 1.4 GHz and 1.5 GHz Pentium 4s. The workstations, also include Marvell Millennium G40 and 88 VISA Image II graphics cards, while the D35 models will include NVIDIA GeForce GTX II 64-bit graphics controllers. Pricing was not available for press time.

IBM Canada has announced its NetVista 500 desktop computer sporting a 1.5 GHz Pentium 4, which will be available in January for \$4,295 and up. It will use the ATI Radeon 8500 as Windows graphics card. IBM also announced the business-oriented NetVista 500 and workstation 500 workstation, which will utilize 500 MHz and 540 MHz and up respectively.

The Computer Price Test Lab has received a Pentium 4 system from Intel, and we will keep you updated on our benchmarking results starting next issue.

### AMD announces making but continuing success

While it is true manufacturers, Intel included, used Compaq's Lan. When it announced new products, AMD had no new processor news to trumpet, but, showing instead to rest on its well-earned success with the Athlon processors. The Athlon processor has already been using both 200 and 250 MHz cores with bus speeds, with its double "pumped" feature that allows information to be transmitted on both sides of the bus both up and down, making it equivalent to doubling both in and out. AMD had previously announced a new chipset on Oct. 10, 2000 which offers more support for DDR memory.

AMD's latest processor is priced at the 1.2 GHz Athlon with the 180-nanometer Transcendent core. A 1.3 GHz version is expected by the end of the first quarter of 2001, and a 1.5 GHz model is expected by the end of the second quarter. As the quarter, there are not targets, and AMD is silent about not confiding any official announcements about new products until they are ready to ship in quantity.

In the meantime, AMD's production fabrication plants are ramping up to ensure continued availability of both the Athlon and the value-oriented Duron. It

www.mediaworld.com

www.softwarer.com

SOFTWARE

305 N. Broadway, San Jose, CA 95131

872-0400

MULTIMEDIA TECHNOLOGIES

UP

MP3

MP3

MP3

MP3

Games

Productivity

Education

SS Cheapies

Linux

Linux

Hacker

ROCK

rock@rockcomputer.com

FREE on-site Network Package Estimation available. Please Call



Intel Inside

NEC TOSHIBA



Supporting Better Hardware through the Better Business Bureau

All prices & specs. are subject to change without notice. All logos and trademarks are their respective owner. All Listed prices reflect 2% cash discount, quantities and specifications are subject to change without notice.

Monitor

15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99

Monitor

15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99
15" CRT 1024x768 Resolution 120Hz	\$199.99	15" CRT 1024x768 Resolution 120Hz	\$199.99

Hard Drive

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

CD ROM

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

DVD

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

Hard Drive

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

Keyboard

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

Video Card

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

Mouse

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

CD Writer

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

Speakers

10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99
10GB IDE 5400 RPM	\$199.99	10GB IDE 5400 RPM	\$199.99

ROCK  
COMPUTER

Please Check Website  
www.rockcomputer.com  
for Current Prices

Store Hours :

Mon - Fri 9:30 - 6:30

Sat. 9:30 - 6:00

#150 - 5172 Kingsway  
Burnaby, B. C.

Fax:(604)419-8898

Tel:(604) 419-8828



## GRANITE SYSTEM

Intel Celeron® 600MHz PC-PGA CPU & Fan  
EISA BUS/AGP PC-PGA/AGP Motherboard ATX  
4MB DR PC133 SDRAM  
Parallel/PS/2 1.44MB 3 1/2" Floppy Drive  
Master 15GB IDE-ATA133 3400 Hard Drive  
SD-BUS AGP Integrated Video  
16" ATX Tower Case with 200W Power Supply  
104 World Wide Keyboard  
Logitech® 28 Mouse PS/2  
MSX 5.28 Integrated Video/FlexModem  
1000/20 Integrated Sound  
Creative Labs® 5.1 CH CD-ROM Drive  
CDW Stereo Speakers w/AC Adapter  
One Month Internet Package  
Full Warranty

15" SVGA Color Monitor  
\$178 Special price  
with CD system

**\$596**

## RUBY SYSTEM

AMD K7 Duron® 900MHz CPU & Fan  
GAS/AGP PC-PGA/AGP Motherboard ATX  
Motherboard ATX  
4MB DR PC133 SDRAM  
Parallel/PS/2 1.44MB 3 1/2" Floppy Drive  
Master 20 GB IDE-ATA133 3400 Hard Drive  
SD-BUS AGP Integrated Video Card  
16" ATX Tower Case with 200W Power Supply  
104 World Wide Keyboard  
Logitech® 28 Mouse PS/2  
MSX 5.28 Integrated Video/FlexModem Card  
1000/20 Integrated Sound  
Creative Labs® 5.1 CH CD-ROM Drive  
CDW Stereo Speakers w/AC Adapter  
One Month Internet Package  
Full Warranty

17" AGP SVGA Color Monitor  
\$246 Special price  
with CD system

**\$748**

## EMERALD SYSTEM

Intel Pentium® III/600MHz PC-PGA CPU  
Only CPU & Fan  
AGP CPU/AGP PC-PGA Motherboard ATX  
4MB DR PC133 SDRAM  
Parallel/PS/2 1.44MB 3 1/2" Floppy Drive  
Master 20 GB IDE-ATA133 3400 Hard Drive  
ATX 12MB SDRAM AGP Video Card  
16" ATX Tower Case with 200W Power Supply  
104 World Wide Keyboard  
Logitech® 28 Mouse PS/2  
MSX 5.28 Integrated Video/FlexModem Card  
1000/20 Integrated Sound  
Creative Labs® 5.1 CH CD-ROM Drive  
MS-888 Multimedia Speakers w/Subwoofer  
One Month Internet Package  
Full Warranty

**\$1,148**

## DIAMOND SYSTEM

AMD Tru64® 600MHz SocketA CPU & Fan  
AGP CPU & Fan  
AGP CPU/AGP PC-PGA Motherboard ATX  
4MB DR PC133 SDRAM  
Parallel/PS/2 1.44MB 3 1/2" Floppy Drive  
Master 20 GB IDE-ATA133 3400 Hard Drive  
ATX 12MB SDRAM AGP Video Card  
16" ATX Tower Case with 200W Power Supply  
Logitech® 28 Mouse PS/2  
MSX 5.28 Integrated Video/FlexModem Card  
1000/20 Integrated Sound  
Creative Labs® 5.1 CH CD-ROM Drive  
MS-888 Multimedia Speakers w/Subwoofer  
One Month Internet Package  
Full Warranty

**\$1,468**

## CHRISTMAS SPECIAL SYSTEM

AMD Tbird® 900MHz SocketA CPU & Fan  
GAS/AGP PC-PGA/AGP Motherboard ATX  
12MB DR PC133 SDRAM  
Parallel/PS/2 1.44MB 3 1/2" Floppy Drive  
Master 40 GB IDE-ATA133 7200 Hard Drive  
32MB AGP Video Card  
16" ATX Tower Case with 200W Power Supply  
Integrated SD-BUS Sound  
Acer 15" U-28A LCD Color Monitor  
Acer CRW1213x32 Int. 5.1 CH CD-Wire Drive  
Juster SP-3800 Speakers w/Subwoofer  
One Month Internet Package  
Full Warranty

**\$1,985**

## CHRISTMAS SPECIAL:

Lexmark 230 Injet Color Printer **\$229**  
Canon Personal Picture Maker PR100 Printer **\$79**  
Canon BJC1000 Inkjet Printer **\$79**  
Brother HL-1030 Laser Printer After \$20 Rebate **\$279**  
Aopen 12x DVD Drive **\$116**  
Aopen 12x/24x CD/DW CD-Wire Drive **\$258**  
Aopen 32MB Cache/20 MB AGP Video Retail **\$168**  
17" SVGA 276dpi Color Monitor **\$248**

Printer	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Scanner	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Network	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Optical	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Web Printer	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Fax/Modem	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Case	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Modem	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Camera	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

PC/Mac	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Sound	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99

Cases	Price
Brother HL-1030 Laser Printer	\$279.00
Canon BJC1000 Inkjet Printer	\$79.00
Canon Personal Picture Maker PR100 Printer	\$79.00
Lexmark 230 Injet Color Printer	\$229.00
Brother HL-1030 Laser Printer After \$20 Rebate	\$279.00
Aopen 12x DVD Drive	\$116.00
Aopen 12x/24x CD/DW CD-Wire Drive	\$258.00
Aopen 32MB Cache/20 MB AGP Video Retail	\$168.00
17" SVGA 276dpi Color Monitor	\$248.00
Logitech® 28 Mouse PS/2	\$19.99
MSX 5.28 Integrated Video/FlexModem Card	\$19.99
1000/20 Integrated Sound	\$19.99
Creative Labs® 5.1 CH CD-ROM Drive	\$19.99
MS-888 Multimedia Speakers w/Subwoofer	\$19.99
One Month Internet Package	\$19.99
Full Warranty	\$19.99







# New ways of computing

PC hardware and software have reached a functionality plateau. Ever increasing CPU power now seeks new form factors, markets, and applications, having satisfied most PC users' needs with some combination of standalone and Internet-connected computing

By Jacques Servage

Computing has gone through what has had to circle in its memories. First, there was the 1950-1965 era of big iron. It was characterized by single-user, low multitasking, mainframes—think of them as your current PC on steroids incarnate. By now, they typically had less CPU, memory and storage capacity than a modern laptop, nonetheless ran the accounting, manufacturing, operations control and other business functions of major corporations—and required budgets of \$1 million to \$5 million per big iron system.

Next came minicomputers, CPUs, machines with virtual memory, user coupling, and device links to feed up connections. Minicomputers lasted from 1965 to 1985. During this period, main-computers from Digital Equipment Corp., Hewlett-Packard, Prime, and others offloaded many of the loads of minicomputers.

The PC era began around 1987 (the IBM PC), accelerated in the early 1990s, gave PCs a big push into business and remained to now it carried out the big iron, with one main controlling act for every desktop. The real success of the PC is that the cost-effective use of computing power could be scaled down to one person.

Around 1990, the local area network (LAN) era began. PCs started to be interconnected on networking cable, with one special PC acting as server—loads of time sharing that there was no less difference between local and mainframe in main-based not based. IBM allowed computing to be distributed down to the PC in the server and client PC shared the computing load (initial

mainframe multitasking in which the central unit was accessed the main computer resources through a "shell" terminal). Hence emerged server computing.

Then, in 1994, the Internet struggle with the Internet and hypertext transfer protocol (HTTP) and other standard protocols being used. Suddenly network servers and even clients of servers have become the winning architecture of the day, and slowly but surely the Internet has brought standardization of software. The Web has acted as the main spreading mechanism of languages in open platform and interoperable have become the essential currency of application development. These languages are down to at least a core and manageable lot of HTML, JavaScript, Java, XML, SQL, and perhaps C++ (other software and languages will of course flourish, but all of these will have to interface with it, if not via directly, the big programming languages of the Internet and computing.

## Waiting for the next killer app

Software has always given information in hardware, and as the result of personal computing, applications appear regularly, but ever transforming the way business or individuals do things. WebCafe is generally regarded as the first killer app for the PC, turning the lobby internet PC into a business computer. Desktop publishing software was the killer app that turned the Apple Macintosh into a tool for graphic artists, and word processors turned the PC into core system reputation. But with PCs becoming as powerful, the CPU is heavily loaded using more documents, spreadsheets, or email. So, what is the next killer app?

Perhaps more integration will be, since it makes only one error in 100 words (no currently at about one error in 10 words) and becomes tightly integrated into PC apps and the operating system.

But even how we have a cultural shift, users can't talk to these computers as most office machines without becoming machines. The next killer PC app is going to be a tough task.

The last one appears to have been Internet, which spawned Webpage and Internet Explorer/World browsers. True there are users of high impact software applications that have been introduced in the past half decade, but there has not been a previous application that everybody agrees has to be loaded and used on their PC. That's the current state of the Web browser.

The Web intranet/intranet network, "the network within computer," has come true. Given the permeability of the Internet intranet and Internet intranet change in application development, most programs no longer reside solely on the PC but are spread over the PC, the main server, the database server and perhaps one or two other supporting programs, creating an all other servers. Hence a team of servers. Since the network is the computer.

## Applications—the next wave

Major computing vendors are busy re-inventing themselves more like saying that the PC, though still a major player, will not remain the dominant player in computing. Vendors know that the software and hardware that works well with and over the Web will lead the personal computing parade into the future. Thus, Compaq is sticking not only to devel-

op better PCs and servers, but also smart devices and appliances that link up to LANs and the Net. An example is hardware like the Sharp Pocket PC, which requires also the mobile wireless and always-on connection to the Internet. In a similar fashion, Microsoft has introduced an "information at your fingertips" (implying a desktop or notebook key-pal-based PC) in "Access for collaboration anytime, anywhere, on any device."

Both of these companies, and others often in the IT industry, are acknowledging that CPU makers are being built into all sorts of devices.

Computer chips are getting smaller, cheaper, and either faster or very low in power consumption (but not both yet). The smaller, cheaper and very much faster chips have gone into PC desktop and notebooks, the very much smaller, cheaper and very low power computer chips have gone into a host of other "embedding appliances" that are starting to make very big waves in computing.

The best example is mobile telephones, which, in the opinion of the Americans, have taken off in Europe (and recently Asia and Latin America).

Two European firms, Nokia of Finland and Ericsson of Sweden, are leading the way, joined by Motorola and Oerlikon in North America and NTT in Asia. Mobile phones with wireless connections to the Internet have in a few states the notion of the Web as an Access to connect without wires, anytime, on any device. Computing and telecommunications have worldwide an ongoing over themselves changing marketing strategy and making new partnerships in order to meet this market.

Continued on page 34





# ATIC

Since 1989

www.atic.ca

845 East Broadway  
Vancouver, BC  
Canada, V5T 1V4

Tel: (604) 675-4339

Tel: (604) 675-4411

Fax: (604) 675-4880

E-mail: Sales@atic.ca

## Merry Christmas & Happy New Year !!!

Business Hours: Mon.-Sat.: 9:30am - 6:00pm (Sun & Holiday Closed)

### Legendre 954 Corporate

- Intel® D850GBAL, ATX
- Intel® Pentium® 4 processors
- Dual Channel SDRAM 128M
- 40GB ATA100 7200 IBM 75GXP
- 1.44MB Floppy
- 52x IDE CD-ROM
- AC'97 audio, SPCL, 2 USB ports
- integrated Intel® 10/100 LAN
- 56k int. voice fax modem v.90
- Veriton 5.550 64MB AGPx
- Landmark ADE-299 with 300W
- Fujitsu R725 PS2 keyboard
- MS Intellimouse and pad

~ Intel® Pentium® 4 - 1.4GHz \$2790

~ Intel® Pentium® 4 - 1.4GHz \$2590

Optional (w/option only)

MS Windows Millennium Ed. .... \$19  
MS Windows XP (w/2) ..... \$21  
MS Windows 2000Pro ..... \$20

### Legendre 954 Corporate

- Intel® D855EAAAL, ATX
- Intel® Pentium® 8 processors
- PC133 SDRAM 128M Micron
- 30GB ATA100 7200 IBM 75GXP
- 1.44MB Floppy
- 52x IDE CD-ROM
- AC'97 audio, SPCL, 2 USB ports
- integrated Intel® 10/100 LAN
- 56k int. voice fax modem v.90
- ATI Fury 32MB AGP
- Landmark ADE-299 with 300W
- Fujitsu R725 PS2 keyboard
- Logitech wheel mouse and pad

~ Intel® Pentium® III 800MHz \$1650

~ Intel® Pentium® III 933MHz \$1750

~ Intel® Pentium® III 966MHz \$1850

~ Intel® Pentium® III 966MHz \$1750

~ Intel® Pentium® III 966MHz \$1550

Optional (w/option only)

MS Windows Millennium Ed. .... \$19  
MS Windows XP (w/2) ..... \$21  
MS Windows 2000Pro ..... \$20

### Legendre 954 Corporate

- Intel® D815EAA, ATX
- Intel® Pentium® III processors
- PC133 SDRAM 128M Micron
- 20GB ATA100 7200
- 1.44MB Floppy
- 52x IDE CD-ROM
- AC'97 audio, SPCL, 2 USB ports
- 56k int. voice fax modem v.90
- TNT2 32MB AGP
- Landmark ADE-625 with 250W
- Fujitsu R725 PS2 keyboard
- Logitech wheel mouse and pad

~ Intel® Pentium® III 800MHz \$1550

~ Intel® Pentium® III 933MHz \$1350

~ Intel® Pentium® III 966MHz \$1250

~ Intel® Pentium® III 966MHz \$1150

Optional (w/option only)

MS Windows Millennium Ed. .... \$19  
MS Windows XP (w/2) ..... \$21  
MS Windows 2000Pro ..... \$20

### Legendre 954 Corporate

- Intel® D815EAA, ATX
- Intel® Celeron® processors
- 20GB Ultra66 IDE
- 1.44MB Floppy
- 50x IDE CD-ROM
- AC'97 audio, SPCL, 2 USB ports
- 56k int. voice fax modem v.90
- ATI Xpert5 1M AGP
- Landmark ADE-613 with 250W
- PS2 keyboard
- PS2 wheel mouse and pad

~ Intel® Celeron® 330MHz \$780

~ Intel® Celeron® 360MHz \$750

~ Intel® Celeron® 400MHz \$730

~ Intel® Celeron® 450MHz \$690

Optional (w/option only)

MS Windows Millennium Ed. .... \$19  
MS Windows XP (w/2) ..... \$21  
MS Windows 2000Pro ..... \$20

### Legendre 954 Corporate

- Intel® 8237 server board, ATX
- Dual Intel® Pentium® III processors
- Dual Peer PCI bus & 6 PCI slots
- Dual Channel Ultra SCSI
- SDRAM PC133 128M Micron
- 36G Ultra160 SCSI
- 1.44MB Floppy
- 52x IDE CD-ROM
- 2 USB ports
- integrated Intel® Pro 10/100 LAN
- integrated video interface
- Landmark ADE-3000 2x300W power
- Fujitsu R725 PS2 keyboard
- MS Intellimouse and pad

~ Intel® Pentium® III - 1000 \$2990

~ Intel® Pentium® III - 933 \$2790

~ Intel® Pentium® III - 866 \$2690

~ Intel® Pentium® III - 800 \$2590

(see processor is included in the price)

Optional (w/option only)

MS Windows Millennium Ed. .... \$19  
MS Windows 2000Pro ..... \$20  
MS Windows XP (w/2) ..... \$21  
MS Windows XP (w/2) ..... \$21  
MS Windows XP (w/2) ..... \$21

### Legendre 954 Corporate

- Intel® server board, ATA100-ATX
- Dual Intel® Pentium® III processors
- Dual Peer PCI bus & 6 PCI slots
- Dual ATA100 EIDE
- SDRAM PC133 128M Micron
- 45G ATA100 7200
- 1.44MB Floppy
- 52x IDE CD-ROM
- 2 USB ports
- Intel® Pro 10/100 LAN
- PCI 16M video
- Landmark ADE-102 300W power
- Fujitsu R725 PS2 keyboard
- MS Intellimouse and pad

~ Intel® Pentium® III 1000MHz \$1820

~ Intel® Pentium® III 933MHz \$1720

~ Intel® Pentium® III 866MHz \$1620

~ Intel® Pentium® III 800MHz \$1520

(see processor is included in the price)

Optional (w/option only)

MS Windows Millennium Ed. .... \$19  
MS Windows 2000Pro ..... \$20  
MS Windows XP (w/2) ..... \$21  
MS Windows XP (w/2) ..... \$21  
MS Windows XP (w/2) ..... \$21

### Legendre 954 Corporate

- Intel® server board, ATA100-ATX
- Dual Intel® Pentium® III processors
- Dual Peer PCI bus & 6 PCI slots
- Dual ATA100 EIDE
- SDRAM PC133 128M Micron
- 45G ATA100 7200
- 1.44MB Floppy
- 52x IDE CD-ROM
- 2 USB ports
- Intel® Pro 10/100 LAN
- PCI 16M video
- Landmark ADE-102 300W power
- Fujitsu R725 PS2 keyboard
- MS Intellimouse and pad

~ Intel® Pentium® III 1000MHz \$1820

~ Intel® Pentium® III 933MHz \$1720

~ Intel® Pentium® III 866MHz \$1620

~ Intel® Pentium® III 800MHz \$1520

(see processor is included in the price)

Optional (w/option only)

MS Windows Millennium Ed. .... \$19  
MS Windows 2000Pro ..... \$20  
MS Windows XP (w/2) ..... \$21  
MS Windows XP (w/2) ..... \$21  
MS Windows XP (w/2) ..... \$21

### Legendre 954 Corporate

- Notebook 6420N 14" TFT
- Intel® Pentium® processors
- 128M SDRAM
- 10GB Ultra66 IDE
- 1.44MB Floppy
- DVD-R, IDE
- AC'97 audio, 1 USB, 1 S-Video
- 56k int. voice fax modem v.90
- ATI 1M AGP
- Carrying case + keyboard + mouse
- Li-Ion Battery & AC adapter
- MS Windows ME with cd

~ Intel® Pentium® III 500MHz \$2000

~ Intel® Pentium® III 500MHz \$2150

~ Intel® Pentium® III 750MHz \$2130

~ Intel® Pentium® III 700MHz \$2090

~ Intel® Celeron® 700MHz \$2190

~ Intel® Celeron® 600MHz \$2140

Optional (w/option only)

Upgrade to MS Windows 2000Pro ..... \$100  
Upgrade to 2GB HD ..... \$120  
Upgrade to 2GB SDRAM ..... \$100

All listed prices (reflect 3% cash discount), quantities and specifications are subject to change without notice.

Landmark 29AP ATX case of 200W

new prices call us at 604-675-4339

Over 2000 hit per day now

WWW.ATIC.CA





# Get up to *speed* with the *latest* applications



See our Expanded  
Career & Training Section

The  
**ComputerPAPER**  
magazine's Computer Information Source

## Revisiting future visions

By Jacques Savoyeur

**I**n the June 21, 2000 issue *Time* magazine ran a feature called *Vision 21*, a series of quotes about and looks into 21st-century technology trends. As it turned out, much of the content featured around computing and telecommunication technology and some critical issues and provocative subjects were missed. And in any science fiction book, known alternate futures are one of the enduring themes in technology storytelling. So in that spirit we look at a few of *Time's* hypotheses and add our own spins.

### Will cybersex be better than real sex?

Most definitely—maybe. You will look forward to dream sexual days. A Dream-Alike Pillow (DAP) will measure your pulse, breathing, galvanic skin response, and, most importantly, the REM (rapid-eye movement) sleep stage associated with dreaming. If you fail to achieve your normal REM pattern the DAP will begin a sequence of interventions designed to assist you. First, a series of groans, wrens and glowing AccuPulse pulses will shake into you: whole face, neck and upper back, relaxing some muscles.

Then DAP monitors and records all your pain patterns. It will know if the AccuPulse pulses are working or if they need the aid of AutoWave in the DreamPillow, specially chosen music known to assist your sleeping process. Usually these three methods will lead to a pattern of soundly deep sleep.

But sleep follows a wave like pattern and if DAP sees a sudden quickening of pulse or galvanic skin response it will trigger a series of well-timed methods. Small DreamPillows will be followed by TruSleep—magnetically levitating electromagnetic pulses designed to stimu-

late your pleasure centers in discrete ways known only to your DAP. Monitoring your REM and other biological responses, DAP will enhance a painful tension, induce all paresthesia, AutoWave and neuroleptan send your REM and pulse patterns match one of a dozen highly accurately satisfying states. At this point DAP will look for REM pickup and slowly encourage the method in.

At wake-up time, DAP will trigger a series of audio questions whispering into your ear: evening your eye-blink response, one of which are recorded and stored every 10th of a second, hopefully greatly refreshed by a deep and satisfying sleep. The DAP will analyze the past night's sleeping traces and modify its algorithms accordingly.

**Feasibility.** All of the technologies—AccuPulse, AutoWave, Neuro Effects, TruSleep, and neuroleptan—are available right now. DAP's components: monitoring and sleep stage requirements are within the \$150 to \$250 range. Neuroleptan, explains concerning to key centers of the brain, are the most intense and controversial technology supply for the potential damage and unknown side effects direct implants could have. Putting it all together in a Dream-Alike Pillow is somewhere over the realm of five to 10 years away.

### Will we still drive our cars for will our cars drive us?

Our cars already drive us in stupid things like urban sprawl, strip malls, choking pollution, and the car as our mobile coffin. Unfortunately, our own children are acting so promiscuous gas consumers, so selfish cars reach rates of 15 to 25 percent of pump-tos in polluted urban centers.

Fortunately, IT technologies are making  
*Continued on page 40*

**ABSOLUTELY**

**free**

**INTERNET**

*for*

**LIFE**



**EWEB**

free Internet for life

**1 866 get 3web**

**www.get3web.com**

YOUR WEB HOSTING COMPANY



# Stress Free. MAGMA WEB HOSTING

24/7 SUPPORT  
UNIX AND NT HOSTING  
UPS WITH DIESEL BACK UP  
COLD FUSION  
REDUNDANT BACKBONE CONNECTIVITY  
CGI, PHP, ASP  
FRONTPAGE SUPPORT  
MS SQL, MYSQL  
REAL AUDIO/VIDEO  
MULTIPLE EMAIL ADDRESSES  
LOAD BALANCING  
REAL TIME WEB LOG REPORTING  
SERVER COLOCATION  
SSL SECURITY  
FULL MANAGED SERVER SERVICES  
WEBSITE DESIGN AND DEVELOPMENT

Packages from

## \$22.95

Hosting your website on Magma's servers is a stress free solution. You can choose from our many packages, or work with one of our experts to develop a custom solution.

1-800-576-7704  
[www.magma.ca](http://www.magma.ca)







# INTERNET CENTRE INC. IC COMPUTERS

OPEN EVERY DAY

**The Only Computer Company Has Three Locations To Serve You!!**

BC Coquitlam Branch: Unit 306 - 1194 Landsdowne Dr. Tel: 604-468-3666

Calgary Downtown Branch: 702 - 7 Ave, SW, Calgary Tel: 403-237-7798

Calgary Northwest Branch: #103-901 Centre St, NW Tel: 403-230-9225

## CHRISTMAS SPECIAL

### 17inch Monitor

3 YEAR WARRANTY



**\$239!**



**\$1099**

Options: Opti-400 Processor - \$210.00

Upgrade to 10GB Hard Drive - \$25.00

Upgrade to 128MB Ram - \$65.00

### ValueStar ValueStar

"Direct PC Killer"

Intel PIII 600 MHz

2 Complete Systems

64 MB PC 133 SDRAM

Intel 478 Only Set Motherboard

8 MB Intel 82710 Video

16 GB Hard Drive 3000

17 inch Monitor 8.25kg

No Hidden Shipping Charges

1 Year Labor and 1 Year Parts Warranty

"4096B Killer"

Intel CEL 667 MHz

2 Complete Systems

64 MB PC 133 SDRAM

Intel 478 Only Set Motherboard

8 MB Intel 82710 Video

16 GB Hard Drive 3000

17 inch Monitor 8.25kg

No Hidden Shipping Charges

1 Year Labor and 1 Year Parts Warranty



Notebooks

Acer

### Refurbished Notebooks

IBM Thinkpad T20 - P133, 64MB, 1GB, CD, 28.8K, 17.1in TFT - \$699.00

Mag T70 - P233, 64MB, 4GB, 20K, 30.3K, 13.3in TFT - \$1199.00

Compaq 1210 - P233, 64MB, 4GB, CD, 33.6K, 12.1in TFT - \$1199.00

Compaq 1255 - K20-333, 64MB, 4GB, CD, 56K, 12in KPM - \$1099.00

Stewart Systems - 486-200, 64MB, 1GB, CD, 56K, 12.1in TFT - \$799.00

COMPAQ

IBM

Fujitsu

IBM Thinkpad T400A - P166, 64MB, 2GB, CD, 33.6K, 12in TFT - \$699.00

Compaq LTE 5400 - P166, 32MB, 2GB, CD, 33.6K, 12in TFT - \$699.00

IBM Thinkpad 3800 - P233, 32MB, 4GB, CD, 33.6K, 12in TFT - \$1199.00

IBM Thinkpad 15400 - C433, 64MB, 4GB, DVD, 56K, 14in TFT - \$1499.00

Compaq Evo 4600 - P1 300, 64MB, 1GB, CD, 33.6K, 12in TFT - \$699.00

Refurbished by: And Brown And Company Refurbish, Repair, Clean, Test & Check Out On Weekly Service

WE ALSO CARRY ALL BRAND & MODELS OF NOTEBOOKS.

Please Call for quotation. We Match All Advertised

**www.internetcentre.com**





# THE **MIS** DEPARTMENT™



The MIS Department™, formerly known as PC Connections, a division of MPC Technologies Inc. would like to thank all of our customers for their support for the past 7 years.



Intel Mobile Pentium® III 700 CPU with SpeedStep Technology  
Processor Upgradable Notebook  
128MB RAM  
14" 1" Active Matrix Screen  
5MB SGRAM Graphic display Adapter  
20GB Hard Drive  
8X DVD CD-ROM  
Built in 56K Modem and 10/100 Ethernet Adapter  
Lithium Ion Battery  
Windows Millennium Edition

Your email could **WIN** you a new  
**\$4,000 notebook and More!**

The contest runs December 8, 2000 and closes at 11:59 PM (PST) December 17, 2000. An Early Draw will be held on December 17, 2000. Only the first 5000 entries will be accepted. The first 500 entries will be eligible for early draw drawing.

VISIT

## WWW.MISNETWORK.COM

For a chance to win an Acer 1.6GHz notebook featuring Intel Mobile Pentium® III 700 MMX Processor along with lots of other Windows Intel products



**Attention!**  
Intel® Pentium® 4 is  
available in December!  
Call us for more details.

### Locations

**RICHMOND OFFICE:**  
(Times Square)  
6600 No. 3 Road  
Richmond, B.C. V6V 2C2  
Tel : (604) 270-4863  
Fax : (604) 270-3812

**COQUITLAM OFFICE:**  
(Sunwood Square)  
370-3025 Lougheed Hwy.  
Coquitlam, B.C. V3B 6S2  
Tel : (604) 941-4666  
Fax : (604) 941-4776



# Frontier Burnaby

• NEW STORE • NEW IDEA  
E-mail: Sales\_Burnaby@frontierpc.com

- Six reasons to shop with us:
- Largest Showroom, Huge Selection
  - Knowledgeable Professional Staff
  - Most Competitive Pricing All The Time
  - High Quality Parts, High Quality Service
  - Easy Access From N. Van., Coq., Surrey
  - Plenty of Free Parking Space

## Weekly Focus Sale

Each week we offer excellent savings on computer components and peripherals. Check our website for more products. [www.frontierpc.com](http://www.frontierpc.com)

Desktop Tower™ 3.1 D771886

**Intel Core 2 Duo E6700**  
3.06GHz, 6MB Cache, 775 Pin  
\$180

**Millennium G400**  
256MB, 128-bit, PCI Express  
\$180

**Sound Blaster Live! Platinum 5.1**  
5.1 Channel, 24-bit, 96kHz, 100W  
\$180

**Sound Blaster Live! MP3+ 5.1**  
5.1 Channel, 24-bit, 96kHz, 100W  
\$180

Buy Online @ [frontierpc.com](http://frontierpc.com)

**Black 22.0" LCD Monitor**  
1600x1200, 5ms, 16.7M  
\$220

**Acer 20.5" LCD Monitor**  
1600x1200, 5ms, 16.7M  
\$220

**Samsung 22" LCD Monitor**  
1600x1200, 5ms, 16.7M  
\$220

**Lenovo C20 Clear processor**  
3.06GHz, 6MB Cache, 775 Pin  
\$180

**Acer 20.5" LCD Monitor**  
1600x1200, 5ms, 16.7M  
\$220

Buy Online @ [frontierpc.com](http://frontierpc.com)

**20.5" LCD Monitor**  
1600x1200, 5ms, 16.7M  
\$220

**Sony Pocket PC**  
12.1" LCD, 200MHz, 64MB  
\$180

**HP Jornada 520**  
12.1" LCD, 200MHz, 64MB  
\$180

**Sony Pocket PC**  
12.1" LCD, 200MHz, 64MB  
\$180

Buy Online @ [frontierpc.com](http://frontierpc.com)

Desktop Tower™ 3.1 D771886

**Intel Core 2 Duo E6700**  
3.06GHz, 6MB Cache, 775 Pin  
\$180

**Millennium G400**  
256MB, 128-bit, PCI Express  
\$180

**Sound Blaster Live! Platinum 5.1**  
5.1 Channel, 24-bit, 96kHz, 100W  
\$180

**Sound Blaster Live! MP3+ 5.1**  
5.1 Channel, 24-bit, 96kHz, 100W  
\$180

Buy Online @ [frontierpc.com](http://frontierpc.com)

D-Link DE-600TP 4 Port

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

10/100 Ethernet Hub

\$50

NEC MultiSync P700 17"

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

1600x1200, 5ms, 16.7M

\$220

Monitor

Switch & Routers, Printer, Scanner

## Your only source for online Computer Shopping

Buy Online



[frontierpc.com](http://frontierpc.com)

- Competitive and up-to-date
- Italian made shipping
- Huge inventory
- 100% secure, no your private information stays private
- Having trouble deciding which computer would suit you best?
- Check our shipping policies, ask our experts for advice
- Looking for a hard-to-find part?
- Check our online parts list. We have over 50,000 different items!
- FREE online quotation for a new custom computer system

[www.frontierpc.com](http://www.frontierpc.com)











# www.icicomputer.com

(Visit our website for latest price, special & quotation) Email: [icic@icicomputer.com](mailto:icic@icicomputer.com)

**TEL: 273-1368**

**TOLL: 800-303-0765 TOLL: 800-273-9595 FAX: 273-8336**

1415-4211 Northridge Pk. Richmond, BC, V6V 3J7 **Branches:** Montreal, M3A 2G3, 784 **Business hours:** 10:00am - 6:00pm

**TRADE IN** your old computer  
get up to **\$150 Credit**  
towards **ICI** new system

Upgrade 1st to 2nd CD-RW drive via **\$284.99**  
Palm Pilot R/W: Etc/Via **\$335.95/49.99**  
Brother 100/2000 Laser Printer **\$234.99/49.99**

Linksys Cable/DSL Router 1.4 port **\$119.99**  
PCI FICOM 17" F8500 18" Monitor **\$799.99**  
Samsung 1400T 15" 15" 17" Monitor **\$279.99**

## Intel Pentium III Dream Machine for Power User

## P-IV Arrives!

### Pentium III Power User

Intel Celeron 400MHz  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz 17" CRT  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**P-300-400**  
**1178**  
**1178**  
**1268**  
**1468**  
**1678**

### Pentium III CD-Creator

Opteron PIII 400  
128MB PC133 1.44MB Floppy  
128MB PC133 400  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**P-300-400**  
**1418**  
**1518**  
**1618**  
**1698**  
**1898**

### Pentium III Dream Machine

Intel Celeron 400MHz  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**P-300-400**  
**1798**  
**1898**  
**1998**  
**2078**  
**2278**

### Pentium IV Dream Machine

Intel Pentium IV 1.3GHz  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium IV 1.3GHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**P-400-1300**  
**2399**  
**2499**  
**2599**  
**2699**  
**2799**

All P-III/IV systems come with 3-year service & 2-year parts warranty and one month FREE internet

Options: Windows ME / 2000 Pro / \$149.99 - Acronis True Image / \$49.99 - Link 100 Ethernet Card / \$29.99 - MS Office 2000 / \$79.99 - \$259.99

## Power/Budget Maximizer

## AMD Thunderbird PowerMax

### Celeron Net-Surfer

Intel Celeron 400MHz  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**C-400-400**  
**638**  
**638**  
**668**  
**688**  
**738**

### AMD Duron Net-Surfer

AMD Duron CPU  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**D-400-400**  
**718**  
**718**  
**748**  
**768**  
**788**

### Thunderbird DVD Theatre

AMD Thunderbird CPU  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**T-400-400**  
**828**  
**828**  
**858**  
**878**  
**898**

### Thunderbird CD-Creator

AMD Thunderbird CPU  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

**C-400-400**  
**1348**  
**1348**  
**1378**  
**1398**  
**1418**

All Celeron & AMD systems come with 3-year service & 1-year parts warranty and one month FREE internet

Options: Windows ME / 2000 Pro / \$149.99 - Acronis True Image / \$49.99 - Link 100 Ethernet Card / \$29.99 - MS Office 2000 / \$79.99 - \$259.99

### GPU/RAM

Intel Celeron 400MHz  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

### Drives & Controllers

Opteron PIII 400  
128MB PC133 1.44MB Floppy  
128MB PC133 400  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

### CD Writers

Opteron PIII 400  
128MB PC133 1.44MB Floppy  
128MB PC133 400  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

### Moderns/WebCam

Opteron PIII 400  
128MB PC133 1.44MB Floppy  
128MB PC133 400  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

### Motherboards

Intel Celeron 400MHz  
128MB PC133 SDRAM  
30GB IDE Hard Drive  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

### Type Backup

Opteron PIII 400  
128MB PC133 1.44MB Floppy  
128MB PC133 400  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

### CD / DVD / Sound

Opteron PIII 400  
128MB PC133 1.44MB Floppy  
128MB PC133 400  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

### Printers

Opteron PIII 400  
128MB PC133 1.44MB Floppy  
128MB PC133 400  
Pentium III 400MHz  
ATI Radeon 7500 Pro  
ATI Toaster 2000 P-3  
Acronis True Image  
Acronis CD-ROM Drive  
1024 Super Speakers  
On-Screen Display CD-ROM/Keyboard

\* Prices based on MSRP. 10% rebate. All prices subject to 5% cash discount and up to 50% off before taxes. All trademarks are the property of their respective owners.



**ICI Book PC** Notebook, Size 1  
 Ultra-Slim (22x32x0.5")  
 • 100 Pages (Insert)  
 • Ink-Free Monitor  
 • 16:9 Flat (Widescreen)  
 • PC to TV Output  
 • 1000x600 17" Monitor (1024x768)

[illegible]**NoteBook / Mobile Solution**

## TOSHIBA

[illegible][illegible][illegible]

## 409

[illegible]

## Network Products Centre

## 3COM & D-Link

[illegible][illegible]

1. *Journal of the American Medical Association*, 2000; 283: 2689-2695.  
 2. *Journal of the American Medical Association*, 2000; 283: 2696-2703.

[illegible]

**Network Cables**







*Are big downloads terrifying you?*

*Fatwire can help.*



high-speed internet

instant connection

talk and surf

consistent speed

dedicated line

**fatwire**  
What are you waiting for?

MEMBER OF  
Internet  
Cableway

854.6088

[www.fatwire.net](http://www.fatwire.net)

© 2000 Blackwell Science Ltd *Journal of Internal Medicine* 247: 111–117

1-800-367-8682 Calgary: 368-0872

Toll (800) 303-7070  
Fax (800) 303-7070

0000-0001-9000-0000   0000-0002-0000-0000   0000-0003-0000-0000   0000-0004-0000-0000



## Internet Gateway

NEW

internet access  
&  
web hosting  
packages

BUILDING OUR WORLD AROUND YOU

654-6068

[www.intergate.ca](http://www.intergate.ca)

### Happy New Year!

We are committed to increasing the value and quality that we extend to our current and future customers.

Two of the many improvements include our **new** internet access and web hosting packages.

#### Internet Access\*

Mini Surfer: 15 hours for \$9.50/mo.  
Super Surfer: 150 hours for \$19.50/mo.  
Pro Surfer: Unlimited access for \$24.50/mo.

\*Minimum rates available for increased savings.

#### Web Hosting\*\*

Web Builder: 20MB storage for \$20/mo.  
Web Builder Plus: 50MB storage for \$40/mo.  
Web Builder Pro: 100MB storage for \$60/mo.  
Web Builder Power Pro: 300MB storage for \$90/mo.

\*\*One time setup fee of \$30 for all packages.



Server Colocation also available for \$250/mo.  
**FREE setup!**



Customer service and technical support: Monday to Friday: 9 am - 9 pm  
Saturdays 9 am - 6 pm

Internet Gateway Corporation Ltd.  
885 West Pender Street, Suite 800, Vancouver, BC, Canada V6C 3R2







**SANTA'S GIFT GUIDE IS HERE! MAKE SURE TO PICK OUT A NEW IPC FOR HIM TO MARK ON HIS LIST.**

**SAME  
GREAT PRICE  
YOU CHOOSE:**

**866MHz  
+ 17" Monitor**

OR  
1GHz

866MHz

**\$1699**

Address: 6101 15th Avenue, Suite 100, Denver, CO 80202

**IPC Universal 3-000**  
XPH-L-3-000-30  
Inhalt: Funktionen & Prozesse

[illegible]

Journal of Business Ethics (2015) 129:1–12

Copyright © 2004 John Wiley & Sons, Ltd.

University of California, Irvine

Subject: **English**

**IPC Universal 2-700**  
 X71 A 3 700 05  
 Initial: Panchanath M. prasad

[illegible]

**\$1369**

1999 1000 1000000

18 Dec. 2000

**FREE XMAS BONUS**

Change of DMS of the following

1. PNAS upgrade to 1.2040 type
2. PNAS upgrade to 1.2022-23 type
3. PNAS upgrade to 1.2023-24 type



**Visit a location near you!**

**1-888-446-4472**



50.663.341



4.574.0728



\$554,755.00



MM 379 37

250.662.3488, 604.554.0328, 604.759.8888, 604.373.3729

OR VISIT US AT [WWW.IPC.CA](http://WWW.IPC.CA)

1999年 11月 10日



high quality, sharp sharp image displays.

Creative Lab multimedia products.

Each AZURA model is designed to deliver the best possible value for your computing dollar.

AZURA has a solution to fit just about any type of computing need, you can choose from any pre-configured system or any barebone system with specific components.



#### BUILD TO ORDER SYSTEM WITH BRAND NAME COMPONENTS

##### **XMAS Supreme System\***

Intel® Pentium® III Processor 600MHz  
AMD/ELSI® Mainboard  
1x Win 95 CD-ROM (Model 48.500)  
16MB PC133 SDRAM  
30GB LDM-48 IDE Hard Drive  
Creative® CD-ROM  
Creative® CD-ROM  
Sound Blaster® Live! PLATINUM 5.1  
Creative® AWE32+ 32MB 3 Liter 4860  
TruePro™ Mouse Module  
Microsoft® Windows® Millennium Edition  
Win 95 Keyboard / Mouse / Pad

##### **Business System\***

Intel® Pentium® III Processor 600MHz  
Sierra®/VW® Mainboard  
1x Win 95 CD-ROM (Model 48.500)  
16MB PC133 SDRAM  
30GB LDM-48 IDE Hard Drive  
Creative® CD-ROM  
Sound Blaster® PC 147000 Card  
ATI®/Agart® 96 MB AGP Video Card  
TruePro™ Mouse  
Microsoft® Windows® Millennium Edition  
Win95 Keyboard / Mouse / Pad

##### **Video System\***

Intel® Celeron® Processor 500MHz  
Mainboard Manufactured by Intel®  
Creative® ATR Chipset  
16MB PC100 SDRAM  
15GB LDM-48 IDE Hard Drive  
Creative® CD-ROM  
On Board Video  
On Board Audio  
TruePro™ Mouse / Pad  
Win95 Keyboard / Mouse / Pad

**System prices starting from \$429.00**

**Contact your nearest Azura authorized dealer!**

**Courtesy**  
Cortez Valley Computer  
Tel: (252) 228-2227

**Gilman**  
Productive Computers  
Tel: (919) 886-3331

**Grande Pointe**  
Sylvia Moss System  
Tel: (704) 898-9477

**Hawthorn**  
Omega Systems  
Tel: (252) 342-0012

**Kanagawa**  
Bio Tech  
Tel: (301) 951-4100

**Kanagawa**  
One Stop Computer  
Tel: (252) 344-0980

**Medford Rd**  
R.A. & Co Computer  
Tel: (408) 225-1028

**P. Coquillon**  
DC Computer Hospital  
Tel: (919) 412-3333

**Randall**  
A & B  
Tel: (252) 492-5555

**P. Roberts**  
Marty Computer Shop  
Tel: (252) 354-6479

**Franklin River**  
RCC  
Tel: (919) 482-4870

**Sunny**  
Storage Inside  
Tel: (919) 222-2118

**Green Charlotte**  
Envi-Net Offshore/Pro  
Tel: (252) 254-4108

**Victoria**  
Monarch Computer  
Tel: (250) 344-8880

\*System prices start at \$429.00 with 1 liter 4860 memory. System as not include system configuration.

\*System's support and price. All prices shown are for direct shipping. Delivery services extra.

\*Intel and Creative. System components subject to change without notice.

\*Creative CD-ROM system. System subject to change without notice.

\*All software and system components subject to change. Intel, Creative and Creative Lab products are registered trademarks.

\*All prices are subject to change without notice. All prices shown are for direct shipping. Delivery services extra.

# AZURA





# TOMO COMPUTER INC.

www.tomocomputer.com

Email: tomo@tomocomputer.com

TEL: 270-0366 TECH: 270-8322 FAX: 270-0377

Business Hours

Mon-Fri: 10:00AM-6:00PM

Sat: 11AM-5PM Sun: 12AM-5PM

\*CALL FOR LATEST PRICE\*



## BUDGET MAX INTEL PENTIUM III PREMIUM SYSTEM FOR POWER USER

BUDGET MAX	COLLEGE Not-So-Jerk	PIII POWER USER	PIII DRAM MACHINE	PIII Multimedia Master	PIII PLATINUM USER
MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY

\*\* All Systems come with 3-year service & 3-year parts warranty and one month FREE Internet \*\* Prices are already discounted for cash payment \*\* Prices are subject to change without notice \*\*  
Options: NetworkCard: +\$175 Network Mod: +\$150 3.5" HardDisk 2GB: +\$180 Hard Disk 4GB: +\$280 4MB FloppyDisk 5MB: +\$15 (MAX IN BASKET)

## AMD ATHLON K7 POWER MAXIMIZER X-MAX SPECIAL NOTEBOOK

AMD K7 DUTCH	AMD K7 DUTCH MAX	AMD K7 PLATINUM	X-MAX SPECIAL	NOTEBOOK
MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY	MINI-ATX PC SYSTEM 133MHz PIII 500MHz 16MB SDRAM 16MB VGA 20MB AGP 1.44MB 3.5" FDD 10" CRT MONITOR ACPI POWER SUPPLY 20 MBPS KEYBOARD 20 MBPS MOUSE 1" 3.5" CD-ROM DRIVE 1" 3.5" FDD ATA133 1.5" MONITOR ACPI 500W POWER SUPPLY

## MONITOR MONITOR MONITOR MONITOR MONITOR

MONITOR	MONITOR	MONITOR	MONITOR	MONITOR
15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR	15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR	15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR	15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR	15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR 15" CRT MONITOR

## Hard Drive Hard Drive Hard Drive Hard Drive Hard Drive

HARD DRIVE	HARD DRIVE	HARD DRIVE	HARD DRIVE	HARD DRIVE
1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD	1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD	1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD	1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD	1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD 1.44MB 3.5" FDD

## CD-ROM CD-ROM CD-ROM CD-ROM CD-ROM

CD-ROM	CD-ROM	CD-ROM	CD-ROM	CD-ROM
1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE	1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE	1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE	1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE	1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE 1" 3.5" CD-ROM DRIVE



# ComCanada

## COMPUTERS



3090-8888 Odlin Crescent, Richmond B.C. V6X 3Z8  
Mon-Fri 10:00-6:00pm Saturday 10:00-5:00pm

e-mail: salesrep@online.net

Tel: 604-273-5618 Fax: 604-273-7218

### AMD Performance Systems

AMD OverDrive™ 4000  
AMD K5-100 ACP Motherboard  
4MB PC133 SDRAM  
Fujitsu 20GB UDMA Hard Drive  
4MB Cache™ 100 MHz 3D Accelerator, 256K  
16MB VRAM, 16MB 3D Accelerator  
Parasector 144MB Floppy Drive  
Windows NT Keyboard

**\$1319**  
MSRP

Sending 100% ACP for faster internet  
or Tower Case w/ 120V PSU  
Age 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$1299**  
MSRP

**\$1199** MSRP  
MSRP MSRP

### Intel Budget Systems

Intel Celeron® Processor  
4MB PC133 ACP Motherboard  
4MB PC133 SDRAM  
Fujitsu 20GB UDMA Hard Drive  
Bus 100 ACP Video 16MB

**\$1119**  
MSRP

16MB VRAM, 16MB 3D Accelerator  
Parasector 144MB Floppy Drive  
Windows NT Keyboard  
Sending 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$1079**  
MSRP

**\$1039** MSRP  
MSRP MSRP

**\$929** MSRP  
MSRP MSRP

### Intel Pentium III Business Systems

Intel Pentium III Processor  
4MB PC133 ACP Motherboard  
4MB PC133 SDRAM  
Fujitsu 20GB UDMA Hard Drive  
Bus 100 ACP Video 16MB

**\$1349**  
MSRP

16MB VRAM, 16MB 3D Accelerator  
Parasector 144MB Floppy Drive  
Windows NT Keyboard  
Sending 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$1319**  
MSRP

**\$1149** MSRP  
MSRP MSRP

**\$1329** MSRP  
MSRP MSRP

**\$1149** MSRP  
MSRP MSRP

### Intel Pentium III Deluxe Systems

Intel Pentium III Processor  
4MB PC133 ACP Motherboard  
4MB PC133 SDRAM  
Fujitsu 20GB UDMA Hard Drive  
Bus 100 ACP Video 16MB

**\$1349**  
MSRP

16MB VRAM, 16MB 3D Accelerator  
Parasector 144MB Floppy Drive  
Windows NT Keyboard  
Sending 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$1319**  
MSRP

**\$1149** MSRP  
MSRP MSRP

**\$1329** MSRP  
MSRP MSRP

**\$1149** MSRP  
MSRP MSRP

### Intel P III 550 MHz

Cyberblade Celeron ACP Motherboard  
4MB PC133 SDRAM  
Fujitsu 20GB UDMA Hard Drive  
400 MHz ACP Video 16MB  
Parasector 144MB Floppy Drive  
100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$915**

### Intel Pentium III 800 MHz System

Intel Pentium III 800 MHz CPU  
4MB PC133 ACP Motherboard  
4MB PC133 SDRAM  
20GB UDMA Hard Drive  
Bus 100 ACP Video 16MB  
Parasector 144MB Floppy Drive  
Windows NT Keyboard  
Sending 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$1099**

### Monitor

Benq 17" 100% Refresh Rate  
100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Hard Drive

Fujitsu 20GB UDMA Hard Drive  
400 MHz ACP Video 16MB  
Parasector 144MB Floppy Drive  
Windows NT Keyboard  
Sending 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Backup/Archive

Acronis 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Scanner

Benq 17" 100% Refresh Rate  
100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Modem

Acronis 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Network

Acronis 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Printer

Benq 17" 100% Refresh Rate  
100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Video Card

Acronis 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Multimedia

Acronis 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Motherboard

Acronis 100% ACP for faster internet  
or 400, 100, CDROM Drive  
33 Stereo/FX Sound  
100% Amplified Stereo Speakers  
Logitech 3-button Mouse

**\$119**

### Brother HL 1030 Laser Printer

- Great Printer Quality at Budget Price
- Up to 10ppm Printing
- 1MB Memory for fast performance

**Special \$275** (after tax price)

### Monthly Specials

33MHz Pentium III ACP 100MHz	\$299
Fujitsu 20GB UDMA Hard Drive	\$119
400MHz ACP Video 16MB	\$119
Parasector 144MB Floppy Drive	\$119
100% ACP for faster internet	\$119
or 400, 100, CDROM Drive	\$119
33 Stereo/FX Sound	\$119
100% Amplified Stereo Speakers	\$119
Logitech 3-button Mouse	\$119
Acronis 100% ACP for faster internet	\$119
or 400, 100, CDROM Drive	\$119
33 Stereo/FX Sound	\$119
100% Amplified Stereo Speakers	\$119
Logitech 3-button Mouse	\$119
Acronis 100% ACP for faster internet	\$119
or 400, 100, CDROM Drive	\$119
33 Stereo/FX Sound	\$119
100% Amplified Stereo Speakers	\$119
Logitech 3-button Mouse	\$119
Acronis 100% ACP for faster internet	\$119
or 400, 100, CDROM Drive	\$119
33 Stereo/FX Sound	\$119
100% Amplified Stereo Speakers	\$119
Logitech 3-button Mouse	\$119

### CORPORATE NETWORK

#### CCC Server System

Intel Pentium III 800MHz CPU  
Intel 440BX Motherboard  
128MB PC133 SDRAM  
4MB Cache 100MHz ACP Video 16MB  
Parasector 144MB Floppy Drive  
24" ACP Tower Case  
Creative 505 CDROM Drive  
Integrated Intel 82558 Pro 100-Tbps Ethernet  
Integrated Intel 82558 Pro 100-Tbps Ethernet  
MS Internet Keyboard / MS IntelliMouse

**\$2099** MSRP  
**\$2199** MSRP  
**\$2549** MSRP

#### CCC WorkStation System

Intel Pentium III 800MHz CPU  
Intel 440BX Motherboard  
128MB PC133 SDRAM  
4MB Cache 100MHz ACP Video 16MB  
Parasector 144MB Floppy Drive  
24" ACP Tower Case  
Creative 505 CDROM Drive  
Integrated Intel 82558 Pro 100-Tbps Ethernet  
Integrated Intel 82558 Pro 100-Tbps Ethernet  
MS Internet Keyboard / MS IntelliMouse

**\$2099** MSRP  
**\$2199** MSRP  
**\$2549** MSRP

### Upgrade Special

4MB PC133 SDRAM  
4MB Cache 100MHz ACP Video 16MB  
Parasector 144MB Floppy Drive  
24" ACP Tower Case  
Creative 505 CDROM Drive  
Integrated Intel 82558 Pro 100-Tbps Ethernet  
Integrated Intel 82558 Pro 100-Tbps Ethernet  
MS Internet Keyboard / MS IntelliMouse







# New Year's resolutions for readers

Continued from page 40

When that happens on whole systems, data access becomes an issue. When it comes to software and hardware, we all call it laziness. "Oh well, that's just the computer industry," we hear long put up with it. It's somewhat true, but it's not going to put up with it much longer.

## Include generic CD-ROM driver files on motherboard installation floppy

This is another of the big topics, and I spend a lot of time swapping motherboards. When you change a motherboard, all of your most-well-known software drivers need to be deleted, including the IDE controllers, PCI bridges, etc. Windows 95 has made it possible to swap a motherboard and still have the system run

on a very limited subset of drivers.

Unfortunately, when you change the motherboard, the first thing to become non-functional is the CD-ROM drive. This is a serious problem because all of the driver files you need are on... you guessed it... a CD-ROM. This could save "load all the files onto your hard drive before you swap the board." That's certainly one way to deal with the problem, and something we're taking to doing. It doesn't address the issue of why most people change a motherboard, though, the original user doesn't want any more. Why not include a floppy with generic CD-ROM drivers so users can get that composite control right off the bat instead of having to fight with Windows Plug and Play for an hour?

Special note to Microsoft, include generic CD-ROM drivers on the hard drive of all new and make it the first thing Windows

looks for on a Plug and Play installation.

## Don't change my file extension associations without asking me

Although I appreciate when a program can do a million different things, sometimes I prefer to do some of those things with other pieces of software. Just because I install your software, a driver, or even I want your program to do absolutely everything it can do, unassisted. Offer users the option of which file extensions are associated with your program instead of changing everything.

Are you listening, QuickTime? And although it's interesting to watch your own on-screen lighting, it can be a little weird to see your file with this program's dialogues every time you switch between certain programs, please give me the option to go on screen and know what I don't like.

every time. That's just annoying.

Finally, when the program is uninstalled, don't just cut the connections loose without any association if there's still a program on the system that can handle them. Remember what program used to be associated, and re-associate automatically with that program, if it's all possible. Leaving the extensions floating around unassociated while your program is uninstalled is just... well, unclean.

## Don't produce emptyware

Everyone, I've noticed in the last few years, has been working on one program in one week, and another program in a month in the background. All of sudden, the background program jumps at the front without warning, and you end up trying something else. It's unprofessionally, trapping an event, or worse.

Continued on page 42

## Smartbook Notebooks - Revolutionary Portables

To really get your meeting, MTI's giving away the new Keyframe online scanner by Pricor with all new purchases of selected Smartbook notebooks. Retail value \$775. Please clip and mail-in this ad to your dealer to receive scanner. Please allow 4-6 weeks for delivery. Contact your dealer for full details!



15.1-Inch XGA TFT LCD  
Intel Pentium III 500MHz  
64MB SDRAM  
32X Hard Drive  
2X CD-ROM Drive  
100V Video To A/D  
Smart Lithium Ion Battery  
USB Port  
PC Card Slot 1/2 Slot Modem  
Windows 95  
Carrying Case

\$2600



15.1-Inch XGA TFT LCD  
Intel Pentium III 500MHz  
64MB SDRAM  
32X Hard Drive  
2X DVD-ROM Drive  
100V Video To A/D  
Smart Lithium Ion Battery  
Internal Modem 1/2 Slot Modem  
Windows 95  
Carrying Case

\$2999

SMARTBOOK

1-800-538-8212

Please call for the nearest dealer

MTI

561-5960 Cambridge Road  
Riverside, CA 92504-2300  
Phone (951) 279-4700  
www.mti.com

You might want to hold off  
on the commodore 64...

Product Reviews

go



canada  
computes.com

www.canadacomputes.com



ADAX Computer Inc.  
 12000 Old Orchard Rd.  
 Richmond, B.C. V6V 1Y7  
 Tel: (604) 244-4770  
 Telex: (604) 244-4770  
 Fax: (604) 244-4772  
 Web: www.adax.com  
 Mac/Win/Amiga

# ADAX

Computer Inc.

**Christmas Special**  
 PIII 450/600 \$799/979  
 PIII 450/900 \$1099/1079  
 Celeron 700 \$499  
 Pentium III 450 \$599  
 150 Hard Drive \$119/133/144  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14

Prices are subject to change without notice. System are listed with 1 month PIII-2 system, 3 years labor & 1 year parts warranty.

## Premium System

**Pentium III 450 \$1099**  
**Pentium III 750/600/1000 \$1299/1399/1499**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Celeron 600/700 \$899/999**  
 150 Hard Drive \$119/133/144  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14

## Workstation

**Celeron 600/700 \$899/999**  
**Pentium III 450 \$599**  
**Pentium III 750/600 \$1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Celeron 600/700 \$899/999**  
 150 Hard Drive \$119/133/144  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14

## Super Deal

**Pentium III 450 \$1099**  
**Pentium III 750/600 \$1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Celeron 600/700 \$899/999**  
 150 Hard Drive \$119/133/144  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14

## Home Theater

**Celeron 600/700 \$899/999**  
**Pentium III 450 \$599**  
**Pentium III 750/600 \$1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Celeron 600/700 \$899/999**  
 150 Hard Drive \$119/133/144  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14

## Dream Machine

**Pentium III 450 \$599**  
**Pentium III 750/600 \$1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Pentium III 450/600/1000 \$1199/1299/1399**  
**Celeron 600/700 \$899/999**  
 150 Hard Drive \$119/133/144  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14  
 3.5 Floppy Drive \$14

## Support @ Home: high speed cable internet Service \$30 special (first month free)

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### System Cables

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Sound Cards

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Sound Cards & Speakers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Monitors

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Networks

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### Drives & Controllers

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95

### CPU's

15" CRT \$199.95  
 17" CRT \$249.95  
 19" CRT \$349.95





# The Blackberry Comdex diaries

Or, how I kept in touch in a place that's out of touch (with reality)

By Sean Carmichael

Obviously, this isn't an ordinary town

A lot of you already know, Comdex Las Vegas is one of the largest trade shows going, bringing together around 200,000 computer firm and industry people. All of the new technologies are on display, and there is so much to see that it has to be spread out over two convention centers and a number of hotels.

Well, even spread out like this, people are excited to drop everything and go. If you're with someone, the chances of getting separated are pretty high. Keeping in touch with your group of associates can be next to impossible.

So, even if you can't find them, trying to reach them by cell phone can be a challenge because the noise of the crowd is overwhelming, and that of you can even get a cell through the cellular network on the show is pretty jammed with all of the visitors trying to get in touch with each other.

When The Computer Age team went down to Vegas for the show, where David Tuckman and I used a method of communication that was a lot different. Tapes? No! Wireless was kind enough to set us up with a pair of Blackberry units that have two-way paging capability and send messages in quick bursts instead of using any cellular resources for extended periods. Did it work?

Just so.

Sunday, Nov. 12, 2000

8:30 a.m. (David's) I sent David to David to let him know the address to pick up at the city. David sends back that he's in the cab and will be right out.

11:42 a.m. (David's) He is arriving in Vegas and made our way to the front of the airport. We switch to US roaming and I send David a text message asking him if he arrived OK. Since he's standing right beside me, he looks at me and shakes his head. At least it works.

2:42 p.m. On a walk down for Las Vegas Strip, I suddenly find myself to send David back home developing the Laser World, which is a black glass monolith on the shape of a pyramid, complete with Sphinx on top.

Monday, Nov. 13, 2000

12:00 a.m. After spending a fairly long day walking around looking at booths, lectures and other highlights, I should be asleep. Instead I am wide awake because my group stayed out into the hotel and casino as you don't need as much sleep and you can spend some quality time gambling. Taking sleep I go to David's for a very early breakfast, and while I'm waiting for my food I send David back home with my thoughts about the joys and dangers of Vegas.

8:36 a.m. After only five hours of sleep, I am wide awake again and feeling very refreshed as I drive to a walk-in to the Convention Center (about two to three hours for anyone doing Comdex). I managed to David to let him know and he responds a couple of minutes later. We made someone place to meet up later in the morning.

9:14 a.m. Shortly after arriving at the Convention Center I receive word from back home that all is successfully well. Someone wrote me on checking off a reply on the Blackberry via laptop and looks on at the computer. They ask the quick demo of the product, because they don't believe that I just sent them an answer when I show them another potential customer here!

1:07 p.m. I meet up with a good contact from American Power Corporation at the company's booth. After getting the company's new products, I show the Blackberry after receiving word from my previous at home, who the 23 people met previously at a previous event. We talk and a message back home with greetings. Our quick reply later and we have agreed to visit Rhode Island next time even without leaving the A/C booth.

4:00 p.m. David calls to find out where I am, so we have an appointment to go to Quicksilver for another group event. During Comdex, individual companies or groups will sponsor hospitality suites for media, sometimes making business and fun, or in the case of the Quicksilver sponsored event mostly for fun. I send David and we agree to meet at the event.

5:20 p.m. Quicksilver is exactly what you think it would be: a place to relax and have fun. But David says "I really just had to go to the Quicksilver to see the new product from the company that I met at the Quicksilver." I don't know what he's talking about, but I don't know what he's talking about, but I don't know what he's talking about.

I find this whole experience so surreal that I just sent a quick text message to the Blackberry asking it to find out and I send a short while later my friend this message back to say "I'm sure you can have your Blackberry." I consider replying to it, but I don't want to send it to David, but I don't want to send it to David, but I don't want to send it to David.

8:00 p.m. After dinner in the second restaurant, and he's a bit nervous in Quicksilver. I send a final short message to David, who replies immediately expressing his desire to have us to go to the Quicksilver, but I don't want to go to the Quicksilver.

10:21 p.m. After meeting in line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour.

Tuesday, Nov. 14, 2000

7:11 a.m. Another morning, another early start. David, Jeff Evans (editor of CanadaCompass.com) and I set all night up for the launch of the Windows Update. David calls me that he's in the line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour.

11:00 a.m. to 4:00 p.m. Randomly open.

Each of us have our own meetings to go to. One of the few times the Blackberry went bleeping.

6:51 p.m. At Saloon Northwest I end up showing off the Blackberry again to another journalist and a few people still hovering around to see what it's all about. One of them looks at the Blackberry and we send back and forth to go over a better demonstration. While the email arrives at the other device, the whole thing seems rather odd, and a few more people cameras are loaded.

8:20 p.m. I look around for the rest of the TCP crew, and can't find anyone, so I send David who says he's not in the line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour.

10:21 p.m. After meeting in line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour.

Wednesday, Nov. 15, 2000

8:00 a.m. I have a chance to bring word of the team set and go to the front of the line for a call for half an hour, I receive word from David that he's in the line for a call for half an hour.

10:21 p.m. It's the last day of the show for us, so I decide to make it a good one. I send a colleague who says at the event, hoping that he's checking out regularly from the access terminal scattered through the show floor. He is, and offers a few topics back to check out in an email that comes back to me an hour and a half later.

2:30 p.m. I have an upcoming appointment at the Museum and will have to leave to find out what time it is. I try to call the phone number I had last time, but it's unable to get through on the 20th minute because of all the cell phone traffic in the city. In contrast, all of the Blackberry messages have gone through without a hitch except.

Continued on page 48

**SAVE**  
at least  
**20% off**  
Publishers' list price on every computer book. Every day!



## Dummies & Bibles - Top Sellers!

### Flash & Bible with

Flash & Bible with

Internet for Dummies (no CD-ROM)

Mac OS 9 Dummies

Mac OS 9 Dummies

Mac OS 9 Dummies

Office 2000: Windows for Dummies

PCs for Dummies (no CD-ROM)

Windows 98 for Dummies

Windows 98 for Dummies

Windows 98 for Dummies

Windows 98 for Dummies

Windows 98 for Dummies

CD-ROM	CD-ROM
PRICE	PRICE
\$59.99	\$49.99
29.99	29.99
29.99	29.99
29.99	29.99
29.99	29.99
29.99	29.99
29.99	29.99
29.99	29.99
29.99	29.99
29.99	29.99

**Book**  
**WAREHOUSE**  
SALES BEGIN MON 11A WED 10A



# Get The Most From Canada's Largest Technology Site

[www.canadacomputes.com](http://www.canadacomputes.com)

## Feature article

A major story on a current issue in the computing industry written and researched.

## Today's Headlines

Headline stories updated daily including: software, hardware, business news stories and new product information.

## Product News

Reviews of the latest software software, hardware.

## Free Newsletter or the Product Alert

sign up online to receive special information from CanadaComputes.com delivered directly to your email box

## Holiday Gift Guide

The Holiday Gift Guide featuring technology gift suggestions for every budget

## Reader Poll

What do you think and we'll notify you of other readers responses

## Shopping Guide

Find a retail merchant who compares and often costs information so they can get the best value to your money

## Message from the Editor

CanadaComputes.com is the largest and most comprehensive Website in Canada for individuals and small businesses looking for information on personal computing, networking, and the Internet. Our team of writers researches, tests and product evaluations to help you get the most out of your computer and the Internet.

CanadaComputes.com is a work in progress. We constantly ask for and welcome reader suggestions, praise and criticism, to find new ways we can make the site more complete, useful and interesting.

—Jeff Evans, Editor, CanadaComputes.com





NEW RULES FOR .CA DOMAINS!

.ca

You are no longer required  
to have a federally incorporated  
company to register a .CA domain!

IT'S NEVER BEEN THIS EASY TO GET A .CA DOMAIN NAME!

Now Just  
34.95/yr

**HOSTING PACKAGES**

Starting at only \$39.99/month!

- 5 GB Hard Accounts
- 200MB of web space
- Round the clock 24/7 Support (24/7)
- 4.2 & 4.3 PHP version software
- 100 to 1000 hits online
- Customer Support
- No hidden charges!

**Putting the Easy in E-commerce!**

We provide you with the tools, network and support  
to set up and manage your web site quickly and  
easily. From the smallest home business to the fast  
growth enterprise, we have a hosting package  
to meet your needs.



"Look Communications Inc.  
Trusted by over 14,000 Canadian Web Site Owners"

**REGISTER TODAY AT [www.easyhosting.com](http://www.easyhosting.com)**  
The easiest place to register and host your Internet Domain!

**look**  
**Easy**  
**Hosting.com**

©2000 Look Communications Inc. All rights reserved. Easy Hosting is a registered trademark of Look Communications Inc. All other trademarks are the property of their respective owners.



**CLASSIFIED**

## Business of Portfolio

Bitte zeigen Sie, dass die Funktion  $f: \mathbb{R} \rightarrow \mathbb{R}$  durch  $f(x) = \frac{1}{x^2}$  für  $x \neq 0$  und  $f(0) = 0$  durch  $f(x) = 0$  für  $x = 0$  gegeben ist.

**MAI** (JUL20) 1000 10000 10% Pay Off: Put  
 Early? Success! 5 Year Call: Debt-free Company  
 Brown, Rickhardt 1 MIU Link: [www.1miu.com](http://www.1miu.com)  
 Link or Demand: (760) 211-7375 Ext. 601 Doc. 80  
 © 2002. Reach me by fax: (714) 899-415-5221.

## HARDWARE

FOOT: NTR AND DMS. LUTEMIDOL: 4000 mg in 120M Tris pH 7.5, 10 mM DTT, from a 160M Sodium eq. only [datascience@helixplanet.net](mailto:datascience@helixplanet.net) (708) 424-5883

## INTERNET

501 MAKE MONEY ONLINE 225 [www.netincome.nytimes.com](http://www.netincome.nytimes.com)

STATN C, Cox, WGA, V-CL, IFM, and Jendropi  
Programming by C.mall@statn.com

## SERVICES

ABA, Division 12: Special Issues, Design/Research  
Check print at [www.sagepub.com](http://www.sagepub.com)

MC96001 (QUCB) & Assembly Language  
Complete with Box & Manuals. \$14.95 Firm. #1425-06

## TRAINING

Get the product you demand! ORACLE, IBM, INTEL  
NOT [www.borg.com/ibm](http://www.borg.com/ibm)

**You might want to hold off  
on the commodore 64...**

## Product Reviews



seiner Sicherheitscomputer nicht



**Gotta computer question  
you're even afraid to  
ask your mother?**

## The Computer Paper Archives



[www.canadacomputes.com](http://www.canadacomputes.com)



**GOLDTREE**  
COMPUTER SYSTEMS

**Cost Effective Rack Mount Solutions**  
Sales and Installations



### Basic Mounting Accessories



Enclosure 100



Servers and RAID Enclosures



Controller Radius



Website: <http://www.parkwest.net> Email: [info@parkwest.net](mailto:info@parkwest.net)





# Website: www.ntcw.com



## TRY OUR ONLINE STORE OPEN 24HOURS

Est. 11 Olanik Street  
Sun & Holiday Closes

Mon-Fri 11:30am-6:30pm



**Duron 700MHz \$667**

**Intel PIII 800MHz \$1359**

**Thunderbird 800MHz \$1399**

### SYSTEMS Nexttype Station



Intel Celeron  
600/567/750

\$550/610/700

Intel Pentium III  
600/733/800

\$600/670/740

AMD Duron  
600/700/750

\$550/610/700

Intel Celeron  
666/666/667

\$570/610/700

Intel Pentium III  
667/700/740

\$570/610/700

Intel Pentium III  
666/666/667

\$570/610/700

AMD Duron  
700/750/800

\$580/610/700

AMD Thunderbird  
750/800/850

\$580/610/700

AMD Thunderbird  
800/850/900

\$580/610/700

Only New Parts & Three Year Labour Warranty System Only. All Systems are tested and guaranteed for 48 hours before leaving factory.

### Monthly Special

**Panasonic 6432 CD-Rewriter \$191**



**Celeron 657MHz Slim PC \$799**

**MAIN BOARD & VIDEO CARD SPECIAL**

GGI A10E VIA 133MHz ATA-66 \$125.00

GGI K7T VIA K7T33 ATA-66 \$150.00

Gigabyte GA-6XV70 Dual PIII Via Chipset \$225.00

3DFx Voodoo 5 8500 8MB AGP Raster 800 \$225.00

Vibrant GeForce 2MX 32MB AGP \$150.00

Nvidia TNT2 M64 32MB AGP \$97.50

Matrox G450 32MB AGP Dual Head \$125.00

ATI Xpert 98 8MB AGP \$97.50

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

### Notebook

HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400

### NEW PARTS TYPE

MAIN BOARD & VIDEO CARD SPECIAL

GGI A10E VIA 133MHz ATA-66 \$125.00

GGI K7T VIA K7T33 ATA-66 \$150.00

Gigabyte GA-6XV70 Dual PIII Via Chipset \$225.00

3DFx Voodoo 5 8500 8MB AGP Raster 800 \$225.00

Vibrant GeForce 2MX 32MB AGP \$150.00

Nvidia TNT2 M64 32MB AGP \$97.50

Matrox G450 32MB AGP Dual Head \$125.00

ATI Xpert 98 8MB AGP \$97.50

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

### Cooling System

HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

### Memory

HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400  
HP 6400

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

Intel Celeron 657MHz Slim PC \$799

1178 Pacific Blvd., Vancouver, B.C.



**NEW TYPE**  
COMPUTER WORKSHOP

Tel : 899-0328  
Fax : 899-0373

E-mail : sales@ntcw.com



# EverSOURCE Technology Inc.

A member of the Source Group, established in Taiwan since 1982

#103-13423, 78 Ave.

Surrey, BC, V8V 0H8

www.eversource.com

source@eversource.com

TEL (604) 502-7688

FAX (604) 502-7686

TOLL FREE 1-888-303-9988

One year Parts & Labour

Dealers Welcome

Mon - Fri., 9:30 - 6:00

Sat. 9:30 - 5:30

Sun - Closed



**eMonster 550/500**  
\$ 999/949

**CPU** Intel P4B 550 / 500 MHz  
**RAM** 64MB SDRAM  
**HDD** 15GB / 13GB  
**DVD** 8X DVD-ROM  
**VGA** nVidia BM / ATI 16M  
**SOUND** Crystal 3D  
17" Monitor

**eMachine 400**  
\$ 699

**CPU** Intel Celeron 400 MHz  
**RAM** 32MB SDRAM  
**HDD** 4 GB  
**CD** 32X  
**VGA** ATI 3D Rage 4M  
**SOUND** 3D PCI  
17" Monitor



**DAEWOO 550/ 500** \$849/ 799

**CPU** AMD K6-5 550/ 500 MHz  
**RAM** 64MB RAM  
**HDD** 15 GB/ 10GB  
**CD** 40X  
**VGA** Max. 8 MB  
**SOUND** 32 Bit  
17" Monitor

All systems refurbished and include:

- Micro ATX Case • Speaker
- Microphone • PS2 Keyboard • PS2 Mouse
- 1.44MB Floppy • 5.25 Floppy/Modem
- WIN 98 Original CD
- Monitor

**DAEWOO 450** \$749

**CPU** AMD K6-5 450 MHz  
**RAM** 64MB SDRAM  
**HDD** 4.3 GB  
**CD** 40X  
**VGA** Max. 8 MB  
**SOUND** 32 Bit  
17" Monitor

**IBM** and **HP** also available.



From \$499 for other  
complete systems.  
Call for details.

\* All prices and product availability subject to change without notice. \* All prices reflect 17.1 inch monitor. \* Not responsible for geographical errors. All signs and materials are property of respective owners.



















1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26







# All you can e-eat!



unlimited internet access  
three month free trial  
now that's some food for thought.

**CALL 604.664.0911**

\*some conditions apply

 **startec**<sup>TM</sup>  
GLOBAL COMMUNICATIONS



# anco

COMPUTERS

*Jobs, Service, Repair, Upgrade, Print Design*

Tel: (604) 732-5691

Fax: (604) 732-4608

www.vancouver.computer.com

vancouver.computer.com/guests/csm

Tue - Fri 10 to 7

Sat & Sun 10 to 5

MORNING CLOSED



1188 West Broadway  
Vancouver, BC V6L 1Y6

**MERRY CHRISTMAS!**

★ All Systems have 3 years labor & 1 year parts warranty on 1 month free interest.  
★ Free training on home computers.  
★ Free training on business computers.  
★ Free training on 3D modeling (CAD).  
★ Free training on 3D rendering (3D).

**AMD K7 Athlon 500 \$189**  
\$189 / \$189 / \$189  
\$189 / \$189 / \$189

Includes: 750 MHz 100 AMD Athlon  
128MB SDRAM PC-100  
14" Display Drive  
14" 15" 16" 17" 18" 19" 20" 21" 22" 23" 24" 25" 26" 27" 28" 29" 30" 31" 32" 33" 34" 35" 36" 37" 38" 39" 40" 41" 42" 43" 44" 45" 46" 47" 48" 49" 50" 51" 52" 53" 54" 55" 56" 57" 58" 59" 60" 61" 62" 63" 64" 65" 66" 67" 68" 69" 70" 71" 72" 73" 74" 75" 76" 77" 78" 79" 80" 81" 82" 83" 84" 85" 86" 87" 88" 89" 90" 91" 92" 93" 94" 95" 96" 97" 98" 99" 100" 101" 102" 103" 104" 105" 106" 107" 108" 109" 110" 111" 112" 113" 114" 115" 116" 117" 118" 119" 120" 121" 122" 123" 124" 125" 126" 127" 128" 129" 130" 131" 132" 133" 134" 135" 136" 137" 138" 139" 140" 141" 142" 143" 144" 145" 146" 147" 148" 149" 150" 151" 152" 153" 154" 155" 156" 157" 158" 159" 160" 161" 162" 163" 164" 165" 166" 167" 168" 169" 170" 171" 172" 173" 174" 175" 176" 177" 178" 179" 180" 181" 182" 183" 184" 185" 186" 187" 188" 189" 190" 191" 192" 193" 194" 195" 196" 197" 198" 199" 200" 201" 202" 203" 204" 205" 206" 207" 208" 209" 210" 211" 212" 213" 214" 215" 216" 217" 218" 219" 220" 221" 222" 223" 224" 225" 226" 227" 228" 229" 230" 231" 232" 233" 234" 235" 236" 237" 238" 239" 240" 241" 242" 243" 244" 245" 246" 247" 248" 249" 250" 251" 252" 253" 254" 255" 256" 257" 258" 259" 260" 261" 262" 263" 264" 265" 266" 267" 268" 269" 270" 271" 272" 273" 274" 275" 276" 277" 278" 279" 280" 281" 282" 283" 284" 285" 286" 287" 288" 289" 290" 291" 292" 293" 294" 295" 296" 297" 298" 299" 300" 301" 302" 303" 304" 305" 306" 307" 308" 309" 310" 311" 312" 313" 314" 315" 316" 317" 318" 319" 320" 321" 322" 323" 324" 325" 326" 327" 328" 329" 330" 331" 332" 333" 334" 335" 336" 337" 338" 339" 340" 341" 342" 343" 344" 345" 346" 347" 348" 349" 350" 351" 352" 353" 354" 355" 356" 357" 358" 359" 360" 361" 362" 363" 364" 365" 366" 367" 368" 369" 370" 371" 372" 373" 374" 375" 376" 377" 378" 379" 380" 381" 382" 383" 384" 385" 386" 387" 388" 389" 390" 391" 392" 393" 394" 395" 396" 397" 398" 399" 400" 401" 402" 403" 404" 405" 406" 407" 408" 409" 410" 411" 412" 413" 414" 415" 416" 417" 418" 419" 420" 421" 422" 423" 424" 425" 426" 427" 428" 429" 430" 431" 432" 433" 434" 435" 436" 437" 438" 439" 440" 441" 442" 443" 444" 445" 446" 447" 448" 449" 450" 451" 452" 453" 454" 455" 456" 457" 458" 459" 460" 461" 462" 463" 464" 465" 466" 467" 468" 469" 470" 471" 472" 473" 474" 475" 476" 477" 478" 479" 480" 481" 482" 483" 484" 485" 486" 487" 488" 489" 490" 491" 492" 493" 494" 495" 496" 497" 498" 499" 500" 501" 502" 503" 504" 505" 506" 507" 508" 509" 510" 511" 512" 513" 514" 515" 516" 517" 518" 519" 520" 521" 522" 523" 524" 525" 526" 527" 528" 529" 530" 531" 532" 533" 534" 535" 536" 537" 538" 539" 540" 541" 542" 543" 544" 545" 546" 547" 548" 549" 550" 551" 552" 553" 554" 555" 556" 557" 558" 559" 560" 561" 562" 563" 564" 565" 566" 567" 568" 569" 570" 571" 572" 573" 574" 575" 576" 577" 578" 579" 580" 581" 582" 583" 584" 585" 586" 587" 588" 589" 590" 591" 592" 593" 594" 595" 596" 597" 598" 599" 600" 601" 602" 603" 604" 605" 606" 607" 608" 609" 610" 611" 612" 613" 614" 615" 616" 617" 618" 619" 620" 621" 622" 623" 624" 625" 626" 627" 628" 629" 630" 631" 632" 633" 634" 635" 636" 637" 638" 639" 640" 641" 642" 643" 644" 645" 646" 647" 648" 649" 650" 651" 652" 653" 654" 655" 656" 657" 658" 659" 660" 661" 662" 663" 664" 665" 666" 667" 668" 669" 670" 671" 672" 673" 674" 675" 676" 677" 678" 679" 680" 681" 682" 683" 684" 685" 686" 687" 688" 689" 690" 691" 692" 693" 694" 695" 696" 697" 698" 699" 700" 701" 702" 703" 704" 705" 706" 707" 708" 709" 710" 711" 712" 713" 714" 715" 716" 717" 718" 719" 720" 721" 722" 723" 724" 725" 726" 727" 728" 729" 730" 731" 732" 733" 734" 735" 736" 737" 738" 739" 740" 741" 742" 743" 744" 745" 746" 747" 748" 749" 750" 751" 752" 753" 754" 755" 756" 757" 758" 759" 760" 761" 762" 763" 764" 765" 766" 767" 768" 769" 770" 771" 772" 773" 774" 775" 776" 777" 778" 779" 780" 781" 782" 783" 784" 785" 786" 787" 788" 789" 790" 791" 792" 793" 794" 795" 796" 797" 798" 799" 800" 801" 802" 803" 804" 805" 806" 807" 808" 809" 810" 811" 812" 813" 814" 815" 816" 817" 818" 819" 820" 821" 822" 823" 824" 825" 826" 827" 828" 829" 830" 831" 832" 833" 834" 835" 836" 837" 838" 839" 840" 841" 842" 843" 844" 845" 846" 847" 848" 849" 850" 851" 852" 853" 854" 855" 856" 857" 858" 859" 860" 861" 862" 863" 864" 865" 866" 867" 868" 869" 870" 871" 872" 873" 874" 875" 876" 877" 878" 879" 880" 881" 882" 883" 884" 885" 886" 887" 888" 889" 890" 891" 892" 893" 894" 895" 896" 897" 898" 899" 900" 901" 902" 903" 904" 905" 906" 907" 908" 909" 910" 911" 912" 913" 914" 915" 916" 917" 918" 919" 920" 921" 922" 923" 924" 925" 926" 927" 928" 929" 930" 931" 932" 933" 934" 935" 936" 937" 938" 939" 940" 941" 942" 943" 944" 945" 946" 947" 948" 949" 950" 951" 952" 953" 954" 955" 956" 957" 958" 959" 960" 961" 962" 963" 964" 965" 966" 967" 968" 969" 970" 971" 972" 973" 974" 975" 976" 977" 978" 979" 980" 981" 982" 983" 984" 985" 986" 987" 988" 989" 990" 991" 992" 993" 994" 995" 996" 997" 998" 999" 1000" 1001" 1002" 1003" 1004" 1005" 1006" 1007" 1008" 1009" 1010" 1011" 1012" 1013" 1014" 1015" 1016" 1017" 1018" 1019" 1020" 1021" 1022" 1023" 1024" 1025" 1026" 1027" 1028" 1029" 1030" 1031" 1032" 1033" 1034" 1035" 1036" 1037" 1038" 1039" 1040" 1041" 1042" 1043" 1044" 1045" 1046" 1047" 1048" 1049" 1050" 1051" 1052" 1053" 1054" 1055" 1056" 1057" 1058" 1059" 1060" 1061" 1062" 1063" 1064" 1065" 1066" 1067" 1068" 1069" 1070" 1071" 1072" 1073" 1074" 1075" 1076" 1077" 1078" 1079" 1080" 1081" 1082" 1083" 1084" 1085" 1086" 1087" 1088" 1089" 1090" 1091" 1092" 1093" 1094" 1095" 1096" 1097" 1098" 1099" 1100" 1101" 1102" 1103" 1104" 1105" 1106" 1107" 1108" 1109" 1110" 1111" 1112" 1113" 1114" 1115" 1116" 1117" 1118" 1119" 1120" 1121" 1122" 1123" 1124" 1125" 1126" 1127" 1128" 1129" 1130" 1131" 1132" 1133" 1134" 1135" 1136" 1137" 1138" 1139" 1140" 1141" 1142" 1143" 1144" 1145" 1146" 1147" 1148" 1149" 1150" 1151" 1152" 1153" 1154" 1155" 1156" 1157" 1158" 1159" 1160" 1161" 1162" 1163" 1164" 1165" 1166" 1167" 1168" 1169" 1170" 1171" 1172" 1173" 1174" 1175" 1176" 1177" 1178" 1179" 1180" 1181" 1182" 1183" 1184" 1185" 1186" 1187" 1188" 1189" 1190" 1191" 1192" 1193" 1194" 1195" 1196" 1197" 1198" 1199" 1200" 1201" 1202" 1203" 1204" 1205" 1206" 1207" 1208" 1209" 1210" 1211" 1212" 1213" 1214" 1215" 1216" 1217" 1218" 1219" 1220" 1221" 1222" 1223" 1224" 1225" 1226" 1227" 1228" 1229" 1230" 1231" 1232" 1233" 1234" 1235" 1236" 1237" 1238" 1239" 1240" 1241" 1242" 1243" 1244" 1245" 1246" 1247" 1248" 1249" 1250" 1251" 1252" 1253" 1254" 1255" 1256" 1257" 1258" 1259" 1260" 1261" 1262" 1263" 1264" 1265" 1266" 1267" 1268" 1269" 1270" 1271" 1272" 1273" 1274" 1275" 1276" 1277" 1278" 1279" 1280" 1281" 1282" 1283" 1284" 1285" 1286" 1287" 1288" 1289" 1290" 1291" 1292" 1293" 1294" 1295" 1296" 1297" 1298" 1299" 1300" 1301" 1302" 1303" 1304" 1305" 1306" 1307" 1308" 1309" 1310" 1311" 1312" 1313" 1314" 1315" 1316" 1317" 1318" 1319" 1320" 1321" 1322" 1323" 1324" 1325" 1326" 1327" 1328" 1329" 1330" 1331" 1332" 1333" 1334" 1335" 1336" 1337" 1338" 1339" 1340" 1341" 1342" 1343" 1344" 1345" 1346" 1347" 1348" 1349" 1350" 1351" 1352" 1353" 1354" 1355" 1356" 1357" 1358" 1359" 1360" 1361" 1362" 1363" 1364" 1365" 1366" 1367" 1368" 1369" 1370" 1371" 1372" 1373" 1374" 1375" 1376" 1377" 1378" 1379" 1380" 1381" 1382" 1383" 1384" 1385" 1386" 1387" 1388" 1389" 1390" 1391" 1392" 1393" 1394" 1395" 1396" 1397" 1398" 1399" 1400" 1401" 1402" 1403" 1404" 1405" 1406" 1407" 1408" 1409" 1410" 1411" 1412" 1413" 1414" 1415" 1416" 1417" 1418" 1419" 1420" 1421" 1422" 1423" 1424" 1425" 1426" 1427" 1428" 1429" 1430" 1431" 1432" 1433" 1434" 1435" 1436" 1437" 1438" 1439" 1440" 1441" 1442" 1443" 1444" 1445" 1446" 1447" 1448" 1449" 1450" 1451" 1452" 1453" 1454" 1455" 1456" 1457" 1458" 1459" 1460" 1461" 1462" 1463" 1464" 1465" 1466" 1467" 1468" 1469" 1470" 1471" 1472" 1473" 1474" 1475" 1476" 1477" 1478" 1479" 1480" 1481" 1482" 1483" 1484" 1485" 1486" 1487" 1488" 1489" 1490" 1491" 1492" 1493" 1494" 1495" 1496" 1497" 1498" 1499" 1500" 1501" 1502" 1503" 1504" 1505" 1506" 1507" 1508" 1509" 1510" 1511" 1512" 1513" 1514" 1515" 1516" 1517" 1518" 1519" 1520" 1521" 1522" 1523" 1524" 1525" 1526" 1527" 1528" 1529" 1530" 1531" 1532" 1533" 1534" 1535" 1536" 1537" 1538" 1539" 1540" 1541" 1542" 1543" 1544" 1545" 1546" 1547" 1548" 1549" 1550" 1551" 1552" 1553" 1554" 1555" 1556" 1557" 1558" 1559" 1560" 1561" 1562" 1563" 1564" 1565" 1566" 1567" 1568" 1569" 1570" 1571" 1572" 1573" 1574" 1575" 1576" 1577" 1578" 1579" 1580" 1581" 1582" 1583" 1584" 1585" 1586" 1587" 1588" 1589" 1590" 1591" 1592" 1593" 1594" 1595" 1596" 1597" 1598" 1599" 1600" 1601" 1602" 1603" 1604" 1605" 1606" 1607" 1608" 1609" 1610" 1611" 1612" 1613" 1614" 1615" 1616" 1617" 1618" 1619" 1620" 1621" 1622" 1623" 1624" 1625" 1626" 1627" 1628" 1629" 1630" 1631" 1632" 1633" 1634" 1635" 1636" 1637" 1638" 1639" 1640" 1641" 1642" 1643" 1644" 1645" 1646" 1647" 1648" 1649" 1650" 1651" 1652" 1653" 1654" 1655" 1656" 1657" 1658" 1659" 1660" 1661" 1662" 1663" 1664" 1665" 1666" 1667" 1668" 1669" 1670" 1671" 1672" 1673" 1674" 1675" 1676" 1677" 1678" 1679" 1680" 1681" 1682" 1683" 1684" 1685" 1686" 1687" 1688" 1689" 1690" 1691" 1692" 1693" 1694" 1695" 1696" 1697" 1698" 1699" 1700" 1701" 1702" 1703" 1704" 1705" 1706" 1707" 1708" 1709" 1710" 1711" 1712" 1713" 1714" 1715" 1716" 1717" 1718" 1719" 1720" 1721" 1722" 1723" 1724" 1725" 1726" 1727" 1728" 1729" 1730" 1731" 1732" 1733" 1734" 1735" 1736" 1737" 1738" 1739" 1740" 1741" 1742" 1743" 1744" 1745" 1746" 1747" 1748" 1749" 1750" 1751" 1752" 1753" 1754" 1755" 1756" 1757" 1758" 1759" 1760" 1761" 1762" 1763" 1764" 1765" 1766" 1767" 1768" 1769" 1770" 1771" 1772" 1773" 1774" 1775" 1776" 1777" 1778" 1779" 1780" 1781" 1782" 1783" 1784" 1785" 1786" 1787" 1788" 1789" 1790" 1791" 1792" 1793" 1794" 1795" 1796" 1797" 1798" 1799" 1800" 1801" 1802" 1803" 1804" 1805" 1806" 1807" 1808" 1809" 1810" 1811" 1812" 1813" 1814" 1815" 1816" 1817" 1818" 1819" 1820" 1821" 1822" 1823" 1824" 1825" 1826" 1827" 1828" 1829" 1830" 1831" 1832" 1833" 1834" 1835" 1836" 1837" 1838" 1839" 1840" 1841" 1842" 1843" 1844" 1845" 1846" 1847" 1848" 1849" 1850" 1851" 1852" 1853" 1854" 1855" 1856" 1857" 1858" 1859" 1860" 1861" 1862" 1863" 1864" 1865" 1866" 1867" 1868" 1869" 1870" 1871" 1872" 1873" 1874" 1875" 1876" 1877" 1878" 1879" 1880" 1881" 1882" 1883" 1884" 1885" 1886" 1887" 1888" 1889" 1890" 1891" 1892" 1893" 1894" 1895" 1896" 1897" 1898" 1899" 1900" 1901" 1902" 1903" 1904" 1905" 1906" 1907" 1908" 1909" 1910" 1911" 1912" 1913" 1914" 1915" 1916" 1917" 1918" 1919" 1920" 1921" 1922" 1923" 1924" 1925" 1926" 1927" 1928" 1929" 1930" 1931" 1932" 1933" 1934" 1935" 1936" 1937" 1938" 1939" 1940" 1941" 1942" 1943" 1944" 1945" 1946" 1947" 1948" 1949" 1950" 1951" 1952" 1953" 1954" 1955" 1956" 1957" 1958" 1959" 1960" 1961" 1962" 1963" 1964" 1965" 1966" 1967" 1968" 1969" 1970" 1971" 1972" 1973" 1974" 1975" 1976" 1977" 1978" 1979" 1980" 1981" 1982" 1983" 1984" 1985" 1986" 1987" 1988" 1989" 1990" 1991" 1992" 1993" 1994" 1995" 1996" 1997" 1998" 1999" 2000" 2001" 2002" 2003" 2004" 2005" 2006" 2007" 2008" 2009" 2010" 2011" 2012" 2013" 2014" 2015" 2016" 2017" 2018" 2019" 2020" 2021" 2022" 2023" 2024" 2025" 2026" 2027" 2028" 2029" 2030" 2031" 2032" 2033" 2034" 2035" 2036" 2037" 2038" 2039" 2040" 2041" 2042" 2043" 2044" 2045" 2046" 2047" 2048" 2049" 2050" 2051" 2052" 2053" 2054" 2055" 2056" 2057" 2058" 2059" 2060" 2061" 2062" 2063" 2064" 2065" 2066" 2067" 2068" 2069" 2070" 2071" 2072" 2073" 2074" 2075" 2076" 2077" 2078" 2079" 2080" 2081" 2082" 2083" 2084" 2085" 2086" 2087" 2088" 2089" 2090" 2091" 2092" 2093" 2094" 2095" 2096" 2097" 2098" 2099" 2100" 2101" 2102" 2103" 2104" 2105" 2106" 2107" 2108" 2109" 2110" 2111" 2112" 2113" 2114" 2115" 2116" 211

# New Year's resolutions for vendors

Get your feet off the ground, and a large question of why all software systems have not been contained in that program's individual control of publishing the rest of your hard drive. Sometimes you want to install everything on another drive because space running out of space on C:\. Other times you want to install everything on another drive because you have a multi-OS system and installing your system files to C:\ will put them into the territory of another operating system.

## Make your Web site more friendly

There are a few no-no's that many manufacturers still perpetuate when it comes to their Web sites.

First, never make your site live, or Flash-heavy without making another version available, because you're going to make the site completely inaccessible to those using dial-up. Second, don't force us to accept cookies to get at any of the content on your site. Third, make it easy for us to figure out how to contact you, either by email or by phone, and always go to an email confirmation screen whenever we submit comments to you via a form or your Web site, so we know that our comments got through. A user-friendly Web site can turn people off your company (and it doesn't take long to set up) or to the competition.

## Don't cling to proprietary, inefficient or outdated standards. If there's something better available

Further don't create new standards if they don't offer some advantage. One of the prime examples of this will manifest itself as the next year or so, and that is the digital camera marketplace. Fourtenth has a capacity cap of 16 MB in the market, and yet none of the vendors pushing the envelope on resolution are sticking closely with the Fourtenth format. Eventually, something is going to break if you can only store a couple of photographs on the higher capacity card, something is seriously wrong.

On the other hand, we have found which standard the Memory Stick for use in smaller devices than, theoretically, Fourtenth would do, since Memory Stick has no capacity advantage. Even more relevant, is the fact that some higher resolution digital cameras and MP3 players will use a serial or parallel connection to the computer instead of using much faster USB transfer.

## Include everything in the user's manual, and make it CLEAR

Although products should be easy enough to use without having to refer to the user's manual, a good chunk of the time a flip through the manual reveals one more confusion than before. Sometimes this is a simple language problem, or that many of the manuals are intended for the original language and aren't necessarily checked for readability afterwords.

Other times, the manuals are written by engineers who are so familiar with the product that they don't realize they've left out key bits of information that were obvious to them, but aren't. Remember: not a manual is so written for people who don't understand the product inside and out, and if you write the manual for people who do, you haven't done your job.

## Please, please, PLEASE

### don't minimize competitors

It's all for and shady that you have been to please a new product sometime in the future.

hard-core really not much point in accounting it so far to advance that people get rich of waiting for it.

Case in point: All and the Radius. We first heard about the Radius in late May/early June, and many announcements were made throughout the summer about the product's capabilities. No one I know saw the product as a whole and September or October and during that time many people just got up waiting and pulled up a Gopher's instead. Spending it a number of the month, this is especially annoying because it skips our understanding of history of demand for the product, and then when they can't get hold of it,

they often end up saying at both the manufacturer AND us.

## Don't release buggy new versions of programs that were nearly perfect beforehand

In general, when you have a great product, adding features to it will only make it better. The good example was Netscape Navigator 3.0 as a case in point. Version 3, which was a good, usable browser, had virtually everything you needed to surf the Web (and even today). And it was very compact and reasonably quick to download. Version 4 added a bunch of questionable features, had some

serious bugs that made the browser less usable in certain situations, and added unnecessarily to the load of the program.

Another case is my recent upgrade from Radius 4 to Radius 5. Radius 4 was a step-down from Radius 3 (in my opinion), and Radius 5 adds some features, mostly changing whatever I like something, usually by changing its highlighting text as a rule. There are some nice little points in upgrading from software that is nearly perfect to software that becomes a challenge to keep running. Vendors who feel compelled to radically change down loadable software should always make a point to download previous versions. Q

isp.lynx.net

# UNLIMITED ACCESS

Personal Internet Access

**personal A package**

- 24 Hour Access
- No Prime Time Charge
- 2GB Personal Web Space
- 1 Email Account
- Over 20 000 NewsGroups Access

**\$10** /month **50** /week

**personal B package**

- UNLIMITED Access
- No Prime Time Charge
- 2GB Personal Web Space
- 1 Email Account
- Over 20 000 NewsGroups Access

**\$20** /month **UNLIMITED** /week

Business Internet Services

**business C package**

- 50MB Web Storage
- 20 Email Accounts
- 1GB of Network Traffic
- Fixed Page/FTP Access
- Traffic Analysis Report

**\$30** /month **WEB HOSTING**

**business D package**

- 500 Hours 4400 ISDN
- 8 Channel Connection
- No Prime Time Charge
- 20 Email Accounts
- 20 000 NewsGroups

**\$50** /month **WEB HOSTING - DIAL-UP**

Server Co-Location

**co-location E package**

- High Speed OC3 Backbones
- 1GB Network Traffic
- Static IP Addresses
- 24/7 Monitoring and Support
- Daily Tape Sero (Mon - Fri)

**\$300** /month **SERVER RACK**

## SIGN UP

isp.lynx.net/apply

**604.638.1818**

E-commerce Solution

**eSeeShop 1 package**

- Individual Website
- Unlimited Capability
- Independent Type/Font
- Self Update/Maintenance
- Marketing Promotion

**\$30** /month **FOR SERVICE INDUSTRY**

**eSeeShop 2 package**

- Unlimited Website
- Unlimited Capability
- Independent Backend
- Catalogue
- Marketing Promotion

**\$50** /month **FOR RETAIL INDUSTRY**

**BUILD YOUR OWN E-COMMERCE WEB SITE**

100% GUARANTEE - 30 DAY MONEY BACK

© 1999 Lynx Internet Services Inc. All Rights Reserved.

eSee Shop 1 & 2 are trademarks of Lynx Internet Services Inc.

www.computerscan.com THE COMPUTER PRICE BY CISION SEPTEMBER 2000 55



# BOXING WEEK COMPUTER BOOK WAREHOUSE LIQUIDATION

**Featured  
Specials**

**Limited  
Quantities**



Intro Book

**\$9.99**

Reg \$28.99

**\$19.99**

Reg \$49.99



**\$6.99**

Reg \$36.95  
Also in a Handbook, 2nd Ed

Building a Platform Server



**\$4.49**

Reg \$44.95



**\$8.99**

Reg \$28.95  
Copyright 2000

MCSE 1034  
for Dummies



**\$9.99**

Reg \$42.99

Wrote Group's  
C++ Books



**\$17.99**

Reg \$37.95  
Includes CD-ROM



Network+  
Test Success

**\$9.99**

Reg \$37.50



**\$14.99**

Reg \$38.99



Exchange Server  
Test Success

**\$9.99**

Reg \$27.50



Encyclopedia  
of Networking

**\$9.99**

Reg \$24.99



Business to Business  
Internet Marketing

**\$6.99**

Reg \$44.95

**Doors Open  
BOXING DAY  
Tuesday December 26th  
9:30 AM**

Warehouse Outlet Only

**Dig through thousands  
of computer books!**

Fill up the box we provide. They hold up to 40 lbs of books!

**ONLY \$15.00 PER BOX**

NO LIMIT to the number of boxes you can purchase at this price

**ONE LOCATION ONLY**

**140 Schoolhouse Street  
@ Lougheed Hwy**

Neighbouring School 1 up 2 corners @ 4001 Lougheed Highway



For questions and more info visit us  
at [www.halfpricecomputerbooks.com](http://www.halfpricecomputerbooks.com)

Featured specials are not  
part of \$15.00/box deal

















# WorkSheet Formatting

Continued from page 134

Insert. Faster still, it works in a one-time format. If you click a row, you lock it in. At the bottom and it can be used to paste any number of cells—you need to click it again when you want done to turn it off.

When you have a number of rows in a worksheet you can format them all at once by selecting all the worksheets, then, when you format one worksheet, all the others will be formatted identically. To do this in Excel, click the tab for the first worksheet and hold the Shift key as you click the tab for the last worksheet—the other cells of the worksheets in between as well. In Lotus 4.0 click the first sheet tab to select it, then hold the Shift key as you select the last of the range. Whatever the way you apply it, you should still then be applied to all the selected sheets. If you're using Quattro Pro you must select the rows you want to format first, then click the sheet name and hold Shift as you select the last sheet name, then apply the format.

When you're formatting, a cell you can change its border, fill pattern, and fill color as well as formatting its text colors, size and font. You'll find many tabs on your multiple sheet editors and some display numbers when formatted, which is useful if you have a large worksheet. Choosing a different font for your numbers can reduce the space the numbers take up and consequently reduce the size of the worksheets while maintaining its readability.

Formats with different ways of format and your work to find the best solution for the type of worksheets you use. Keep a clip file of "favorite" worksheet formats that you've created or have used. This will allow you to draw on your own expertise and that

of others when you come to format your own work.

Excel's Conditional Formatting option can be useful for formatting worksheets. You can set it to format data in alternating columns or rows depending on the actual row number. To do this, select the area you want to format, choose Format and select Conditional Formatting. From the Conditions I Drop down list choose Formula is and, as the large box enter the formula

=MOD(ROW(),2)=1

The MOD function takes the current row number divides it by two and returns the remainder (1 for every odd row). Click the format button on the format box for alternating rows, and click OK. You can add another option to format even rows if you use the formula

=MOD(ROW(),2)=0

You can also use the EXCEL/MAINT function to format alternating columns. This formula entered in the Conditional Formatting box will format every odd "numbered" column

=MOD(COLUMN(),2)=1

In 3 continue looking at worksheets for formatting text, borders, and will discuss your options for formatting numbers on your worksheets. □

Info: Brody provides a series of links to help you learn more about the computer industry. In the 91, 92, 93, 94 and 95 editions of the computer industry. Contact Info: [www.brody.com](http://www.brody.com)

Dealer wanted!

High Quality Computer Ink Cartridges. [www.q-link.com](http://www.q-link.com)

INK	EPSON	HP	HP
MODEL	MODEL	MODEL	MODEL
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	7600	7600	7600
Magenta	7600	7600	7600
Yellow	7600	7600	7600
Black	7600	7600	7600
Cyan	760		

# IMPRESS YOUR COMPUTER.



Ever wish you had a friend who knew everything about computers? Who could answer your questions about the Internet, software, hardware, and leading-edge technologies? In plain English?

Who'd always give you the straight goods on stuff like who really makes the best hand-held computers, lap-tops, scanners, etc. etc.?

Well happily you'll never be deprived of technological know-it-all companionship again.

Introducing CanadaComputes.com.

You got a computer or computer-related question. CanadaComputes.com has got the answer.

We've also got Canada's largest and most respected staff of technology journalists.

Our product reviews are hard-hitting and totally objective.

Our news is "new." Our information archives are almost endless.

Our searchable databases are a virtual online "cybermarket" and contain thousands of products to which more are added each week.

Until CanadaComputes.com, no one could ever know all this. But now you can.

It's even enough to impress you-know-who.

[www.canadacomputes.com](http://www.canadacomputes.com) Helping **Canada** click.













# La Belle Époque 2.0



**L**a Belle Époque was an era of industrial reform, social progress, and political prosperity and security that stretched its span in the last decade of the 19th century and the early years of the 20th, just prior to

World War I. For the economic boom of this period, was spurred by rapid scientific advances, an industrial revolution epitomized by Henry Ford's assembly line production, and by rail and related through Frederick Taylor's principles of scientific management.

Our era begins in the knowledge revolution, it is being driven by Moore's Law (the predicted doubling of computing power every 18 months or so) and technological, financial and information, not only and globally over the Internet. Both sides had relative political stability in the earlier era, that stability came from the French and European control over their empires, and U.S. influence over the Americas as well as the Monroe Doctrine. Today, we see relative stability through the United Nations and yet we see social apathy, North Atlantic Treaty Organization like (NATO-like) alliances, expanding world trade, and market wide constitutionalism. There are implications in the fall of empires and the rise of national economic prosperity for many regions.

But deep-seated problems in the turn of the 20th century set the stage for the worldwide inequalities, our parents and grandparents lived through. Are the problems we face today the preconditions for our new predicament?

Warms and thinkers of both eras were caught in conflict. La Belle Époque was the rapid rise of the industrial and more efficient world (telephone, electricity, cars, and airplanes) with all emerging technology and the debt in major regions from a rural, agricultural, and self-sufficient lifestyle to an urban wage-based, primarily consumer world. This led to here and here to conflicts in, among developed countries, to here and here, most conflicts then culminated in the epic loss of life and resources that was World War I.

The consequences we have been plagued with a process in our most important product economy, where selling the commodities of their or abundant water and other environmental benefits is purified under the rubric of increasing economic growth and prosperity. The problem is that the pace of change has become so rapid only just as we perceive that there is little or no time left for error.

Thus, it is interesting that such diverse sources as the Organization for Economic Co-operation and Development (OECD) and *New Trends and Discovery* magazines agree that our scientific and economic progressions could lead to such worldwide calamities as global warming, pandemics (postmodern epidemics affecting people in any social different conditions), or economic in-



**The parallels between today and La Belle Époque are uncanny and interesting. But when the inevitable crunch comes, will the Web help?**

stability among the forces or so leading problems confronting the world. And so, just as La Belle Époque came to an abrupt end with the outbreak of World War I, the current era of economic prosperity and worldwide growth may be broken by an environmental or socio-political crash of worldwide proportions.

So an interesting question arises: Will the information technology infrastructure help or hinder the resolution of such crises? Will that old Internet, IT and specifically the Internet will so already impregnate world wide web, will tend to have a moderating effect, reducing the chance of mass hysteria or panic. In many cases, ordinary people will be able to get at not one but dozens of sources

of information from around the world describing the problem. Thus, the likelihood of misunderstanding the nature of the crisis should be reduced. For example, a simple search of Google.com or Yahoo! search engines turn up dozens of high quality sites

of information from around the world describing the problem. Thus, the likelihood of misunderstanding the nature of the crisis should be reduced. For example, a simple search of Google.com or Yahoo! search engines turn up dozens of high quality sites

of information from around the world describing the problem. Thus, the likelihood of misunderstanding the nature of the crisis should be reduced. For example, a simple search of Google.com or Yahoo! search engines turn up dozens of high quality sites

of information from around the world describing the problem. Thus, the likelihood of misunderstanding the nature of the crisis should be reduced. For example, a simple search of Google.com or Yahoo! search engines turn up dozens of high quality sites

of information from around the world describing the problem. Thus, the likelihood of misunderstanding the nature of the crisis should be reduced. For example, a simple search of Google.com or Yahoo! search engines turn up dozens of high quality sites

of information from around the world describing the problem. Thus, the likelihood of misunderstanding the nature of the crisis should be reduced. For example, a simple search of Google.com or Yahoo! search engines turn up dozens of high quality sites

**Clutch!**



# Zoltrix

## QUALITY PRODUCTS AT DOWN TO EARTH PRICES!

Website: [www.zoltrix.com](http://www.zoltrix.com)  
Call us at 1-877-ZOLTRIX for a  
1-877-ZOLTRIX®  
Call for more info



## EXTREME MULTIMEDIA

### EAGLE CAN USB CAMERA



Eagle Can will automatically capture up to 25 seconds of video for you... and e-mail it to you at your designated E-mail address, even though you're not even there. This software package consists of Internet Phone, Video, Email, Internet Voice Phone, and Internet Chat. The Zoltrix Eagle Can Video Security Software enables you to get an instant message if someone enters into your home or office.

**\$49**

### GENIE TV CARD WITH FM TUNER



Zoltrix Genie TV tunes your computer into your Internet entertainment center. It provides you with Super Quality TV and Video Capture. With programmable AT Remote Control you remote programs to get a 30% discount. You can even use it to watch off your computer.

**\$79**

- Cocoonix's latest imagination technology
- Full Colour and Motion Video Capture
- Live Video Conferencing
- Send Video Email
- Capture still pictures that you can send through Email
- Edit and create your own video clips
- Turn Your PC into a complete security Device!

Now you can capture those precious moments



- Supports NTSC, PAL, SECAM
- Full motion video capture
- Scalable TV with movable windows
- Auto scan
- Supports Intel InterCast and WebTop
- Supports closed caption functions
- Supports Microsoft Web TV
- NTSC stereo decode (optional)
- Full DDX noise reduction (optional)

- Compatible with home camcorder
- Wireless IR programmable remote control
- Switch off computer by remote (ATX computer required)
- FM Tuner included

## GET ON LINE

Are you ready for high speed Internet surfing and Data/ Fax communication

### RAINBOW USB EXTERNAL MODEM

- Features**
- Surfing and connection speed up to 56Kbps
  - 64M Flash ROM memory
  - Quad Mode: Automatically works all ITU-T V.32, V.32bis or V.34 connections
  - Onboard Throughput Response PC with 256K UNP
  - Fully supports Windows 95/98 operating system
  - Detection: Plug Detection and Color 32-Color Screen only
  - Free security virus upgrade
  - Video Conferencing Support
  - V.42 synchronous error mode
  - +32K support for enhanced video Conferencing
  - Full Screen Mail Function
  - Multitasking: Remote and make incoming video fax and data call to proper mode
  - Data speed up to 14.4Kbps
  - Charts and screen data is of handy group 3 fax machine
  - Voice-quality: Voice, Fax, and data for transmission and multiple requests
  - Convenient voice storage and playback
  - Easy voice message retrieval from telephone handset, simplified speaker's up speed read or from remote handset
  - Powerful protection for up to 255 mail boxes



**\$79**

### PCMCIA USB FLEX FAX MODEM

- Modem Features**
- Surf the web at speeds up to 56 Kbps
  - Send and receive Fax: exchange 3 mail and receive on-line: instant connection
  - Automatic: auto
  - Supports AGPS, Standard 3200bps
  - 2400bps and 1200bps Data transfer protocols
- Fax Features**
- Send and receive fax messages to or from any group 3 fax machine
  - Written software is compatible
  - Reduced transmission
  - Comprehensive internal and external logs
  - Send lower speeds and attachments
  - Reduce faxed phone calls
  - Auto: add for busy signal
  - Exchange multiple pages
  - Automatic fax rate detection
  - Wave Top and make before printing
  - About in and out with a fax server
  - Automatic printing of received faxes
  - Flexible phonebook management



**\$79**





1.877.847.5809

www.attcanada.ca/business/dedicate.html

# Dedicated Internet Access.

(Cisco Router Included.)

*Dedicated Access* means you're on-line all the time. *Guaranteed.* And we'll include all the necessary hardware and *waive the setup fee, up to \$1000\**

**Speed & Reliability** - It's what AT&T Canada's Dedicated Internet Services offers with our 24/7 ring of sophisticated DSL and access points - designed to accommodate business of all sizes. **Internet Guarantee** - For the limited time, we return completely satisfied after 30 days or a full refund. We also guarantee 99.5% uptime, available or we refund 20% of your monthly fee.

**Fastest Network** - AT&T Canada's network is based on national backbone, 130,000 fibre, local and long-haul, direct, 68,000 km, 12 connections to the global Internet. **Call Now!** - Choose AT&T Canada and we'll help you choose the right Dedicated Access bundle for your company. We'll recommend a bringing you a fully customized service for local, long distance and international needs. Because everything's better at AT&T Canada.

Choose AT&T Canada  
and discover the right  
Dedicated Internet  
Access bundle  
for your company.  
**Call now!**

AT&T Canada/DSL
<ul style="list-style-type: none"> <li>• Dedicated DSL service</li> <li>• 100% Uptime</li> <li>• 24/7 Support</li> <li>• 100% Satisfaction</li> <li>• 100% Refund</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> </ul>
<p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p>

AT&T Canada/DSL
<ul style="list-style-type: none"> <li>• Dedicated DSL service</li> <li>• 100% Uptime</li> <li>• 24/7 Support</li> <li>• 100% Satisfaction</li> <li>• 100% Refund</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> </ul>
<p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p>

AT&T Canada/DSL
<ul style="list-style-type: none"> <li>• Dedicated DSL service</li> <li>• 100% Uptime</li> <li>• 24/7 Support</li> <li>• 100% Satisfaction</li> <li>• 100% Refund</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> </ul>
<p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p>

AT&T Canada/DSL
<ul style="list-style-type: none"> <li>• Dedicated DSL service</li> <li>• 100% Uptime</li> <li>• 24/7 Support</li> <li>• 100% Satisfaction</li> <li>• 100% Refund</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> </ul>
<p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p>

AT&T Canada/DSL
<ul style="list-style-type: none"> <li>• Dedicated DSL service</li> <li>• 100% Uptime</li> <li>• 24/7 Support</li> <li>• 100% Satisfaction</li> <li>• 100% Refund</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> </ul>
<p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p>

AT&T Canada/DSL
<ul style="list-style-type: none"> <li>• Dedicated DSL service</li> <li>• 100% Uptime</li> <li>• 24/7 Support</li> <li>• 100% Satisfaction</li> <li>• 100% Refund</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> <li>• 100% Satisfaction</li> </ul>
<p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p> <p>100% Satisfaction</p>

1.877.847.5809  
www.attcanada.ca/business/dedicate.html



**1.877.847.5809**

**[www.attcanada.ca/business/dedicate.html](http://www.attcanada.ca/business/dedicate.html)**



**1.877.847.5809**

**[www.attcanada.ca/business/dedicate.html](http://www.attcanada.ca/business/dedicate.html)**

Choose AT&T Canada  
and discover the right  
Dedicated Internet  
Access bundle  
for your company  
***Call now!***



Service set up fees exceed \$1000. Offer covers first \$1000 only. Call us and we will use the complete details on Business and Performance Customer Service and Candidate apply. Services subject to change. © AT&T Corp. All rights reserved. \*AT&T Corp. (Bell Canada). Please quote the following approval code 1091.